

THE JOURNAL OF
MEDICAL
EDUCATION

DECEMBER 1953 • Vol. 28, No. 12

Table of Contents on Page 2



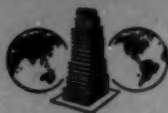
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West Washington Square Philadelphia 5

Table of Contents

Vol. 28 December 1953 No. 12

ARTICLES

- Medicine As Human Biology
—Alfred H. Washburn..... 9

SPECIAL SECTION

- Minutes of the Proceedings, 64th Annual Meeting 17

EDITORIALS AND COMMENTS

- Individual Membership in the AAMC..... 73
Our Readers Write
What Is Pathology?..... 74

NEWS DIGEST..... 77

- College Briefs 78

AUDIOVISUAL NEWS..... 88

BOOK REVIEWS..... 93

ABSTRACTS AND EXCERPTS..... 97

THE PERSONNEL EXCHANGE..... 99

INDEX TO VOLUME 28..... 102

Author Index..... 106

Calendar of Meetings..... 4

Index to Advertisers..... 4

The Journal of MEDICAL EDUCATION



Official publication of the Association of American Medical Colleges, 185 N. Wabash Ave., Chicago 1.

The Journal of MEDICAL EDUCATION is owned and published monthly by the Association of American Medical Colleges, 185 N. Wabash Ave., Chicago 1; Phone, State 2-8870. Entered as second class matter January 17, 1930, at the Post Office, Chicago, Ill., under the Act of March 3, 1879.

EDITORIAL BOARD: Lowell T. Coggeshall, Chicago; William B. Bean, Iowa; James Faulkner, Boston; Chauncey D. Leake, Texas; Robert A. Moore, Washington (St. Louis).

STAFF: Editor, Dean F. Smiley; Assistant Editors: Tess Snyder, Jeanette Ninas.

EDITORIAL POLICY: Neither the editors nor the Association assumes responsibility for statements made by individual writers.

SUBSCRIPTION RATES: \$7 per year; \$1 per single copy; foreign \$8 per year; \$1.25 per single copy.

COPY DEADLINE: Copy for typesetting must be in by the 1st and plates by the 10th of the month preceding publication.

ADVERTISING INFORMATION: Write or phone the Journal of Medical Education, 185 N. Wabash Ave., Chicago 1, Ill.; State 2-8870.

Copyright: December 1953, by the Association of American Medical Colleges.

Printed in U.S.A.

Medicine As Human Biology

ALFRED H. WASHBURN

JUST 15 YEARS AGO I presented a paper before this Association on "Child Research in a Medical School." I described the Child Research Council of Denver with its program for the study of individual children as each one grew and developed from birth to maturity. I also suggested some of the benefits which might accrue to a medical school as a result of an affiliation with such a longitudinal study of children growing up.

During these 15 years the investigations of the Child Research Council have themselves grown and developed into a more careful and thoughtful study of the whole human life cycle. Each of a group of human beings is being followed as he grows, as he develops and as he adapts to his own particular environment. We are concerned with how a person acquires his adult characteristics physically, physiologically and psychologically. Our subjects, who were barely past infancy when I last addressed this society, are now in college, in the Armed services or at work. Fifteen of our newer subjects are babies whose father or mother was a child in our study series when I described the program 15 years ago.

The affiliation between the University of Colorado School of Medicine and the Child Research Council also has developed steadily

during these past 15 years. During the war years some members of our staff carried a heavy teaching load in the school, on a volunteer basis. After the war the staff of the Child Research Council was accepted by the regents as forming also the staff of the department for the study of human growth of the University of Colorado. Serving in this dual capacity, we have taken a more active part both in curriculum planning and in the actual teaching of medical students and pediatric house staff. These experiences have strengthened some of my convictions and altered others. This paper represents an attempt to bring up to date some of the thoughts I held and expressed 15 years ago. Although I shall recount experiences in the University of Colorado and in the Child Research Council, I must make it clear at the start that I am presenting simply my own ideas and opinions.

First, I shall make a few comments about the title. I considered seriously several much more frivolous ones, such as "It's Fun to Teach Freshmen," or "A Course That's Not a Course." I shall return, in a few minutes, to the thoughts they suggest. I chose the rather pompous title, "Medicine as Human Biology," in order to emphasize what has seemed to some people a useful contribution to the thinking of teachers of medicine. To be sure, there is nothing new in the

Dr. Washburn is professor of human growth and development and director of the Child Research Council, University of Colorado School of Medicine. This article is adapted from an address made by Dr. Washburn during the 64th Annual meeting of the Association of American Medical Colleges, October 26-28, 1953, at Atlantic City, N. J.

thought that medicine is human biology. A number of wise biologists, students of the nature of living organisms, have pointed out that the biologic unit is the individual organism, complete from its original germ cells through its life cycle of development and adaptation, to final dissolution in death. It is obvious that the very nature of a living organism involves time changes, growth, maturation, and the endless adaptations it must make in order to remain alive and healthy in the face of environmental hazards.

If we have made any small contributions which justify this paper they are: (1) insisting that these biological concepts and principles apply to man; (2) stressing that they apply not just to man in the abstract but to each person who comes to seek help from a physician; (3) striving to apply this idea to the teaching of freshman medical students as they start school.

It has been said that this awareness of the biological nature of each person serves as a useful framework into which the student can fit the various facts and principles he learns in both the basic medical sciences and the clinical subjects. The nature of growth and development, whether at the level of physical structure or of personality functioning, must be understood if the physician is to make a sound evaluation of a person of any age. So too, a familiarity with the physiological and chemical responses during development is necessary for judging the adequacy of the patient's adaptive mechanisms.

In clinical medicine sound diagnosis, adequate treatment and wise prognosis all challenge the physician to try to understand his patient as a total biologic organism, reacting in a characteristic way to a particular

set of environmental factors. The need for such understanding is just as clear for the physician of the future, emphasizing more and more the prevention of disease or the positive promotion of good health for the individual patient under his care. If one accepts the physician's responsibility for a knowledge of his patient's past history, an understanding of his present illness, and wisdom in treatment and prognosis, then a course of human growth, development and adaptation should serve a useful purpose for the freshman.

I believe such a course does have a logical place in the freshman curriculum, but I feel that it should not be called a "framework" for future medical knowledge. Such a term suggests a relatively static and immovable structure. The important point is that a freshman course in human development and adaptation should attempt to give the students dynamic concepts rather than masses of facts.

In introducing the Colorado freshmen to medicine as human biology we are trying to stimulate the student to think about the nature of his life-long task as a physician. In most simple terms, this is the constantly repeated job of trying to understand thoroughly and to evaluate adequately a person who happens to be his patient. It is not too difficult for the student to visualize the need for understanding the human life cycle. It is not quite so easy for him to apply his concept to the individual—to see that because each of us is different there is the necessity for attempting to understand what has been the developmental story of each patient—his total transactions of living up to the present time. And, finally, it is difficult for many a student to realize that he himself is the chief instrument which must evaluate another

individual person—that he himself is a person, a biologic unit like his patient, with a past history of growth, development and meaningful adaptations.

So much for the concept we are trying to present. What about its application in the actual teaching situation?

Changes in Curriculum

Seven years ago members of our faculty were wrestling with the problem of how to make major changes in the curriculum. In the midst of a series of almost endless discussions about the pros and cons of various suggestions I wrote out a statement which I should like to repeat at this point. "Although it may sound trite or obvious yet it seems to me we should state clearly our conviction that a good teacher can accomplish good teaching in spite of a very mediocre curriculum—that no matter how sound the reorganization of the curriculum, a poor teacher will not thereby turn into a good teacher. Furthermore, the variation between equally good teachers in the manner in which they function, the variation in subject matters which lend themselves to different technics of presentation, and the great variation in students as to how they learn most readily—all these variables must enter into any curriculum planning. From this it seems clear that a new curriculum should allow great flexibility and the greatest freedom for individual teacher and students to work together toward the common goal."

Perhaps this statement sounds not only trite but also a little too much like Pollyanna. It was, however, more a statement of goals than of the end to be immediately accom-

plished. Actually no one of us on the curriculum committee succeeded in getting across for final adoption more than fragments of his own pet concepts about how a curriculum should be planned. The very variability of points of view among faculty members led to a series of compromises in order that each teacher might be able to fit himself happily into the plan.

My own scheme for orienting the freshmen to medicine as human biology called for a series of carefully planned activities throughout the first year. It was cut down to a relatively small number of hours, limited to the first semester. Originally it would have offered the students the opportunity for contacts with families and institutions in our community. This was abandoned in the face of sound objections involving both lack of adequate teaching personnel and the old problem of protecting the time spent on mastering the basic sciences. Feeling as I do that the caliber of the teachers and the excellence of the students are the essentials for turning out good physicians, I was not too much distressed by the fact that the new curriculum was not just as I would have liked it. Within its provisions we have tried to set up ways and means of getting across our story.

I have said that our aim is to help the student see the need of a thorough understanding of the growth, development and adaptations of a human being. We hope to stimulate an appreciation of the process by which each of his future patients has become the kind of person he is at the moment when he seeks the physician's help. We have chosen four different means of stimulating the student's thought in this direction.

I. Our students spend the first week of school in a rapid dissection

of tiny cadavers, ranging in age from about five fetal months to term. There is an occasional stillborn and also newborn who has breathed before death. The laboratory is in charge of Dr. Edith Boyd, pediatrician, anatomist and lifelong student of growth.

We feel that this week accomplishes several purposes. It reveals the general nature of the human fetus and the adaptations necessary to survival while it grows in utero and eventually is thrust out into the hard cold world. It demonstrates dramatically the existence of great individual variation as well as the startling age changes. It furnishes a solid, tangible, easily visualized base for students' thinking about human growth and the adjustments demanded by it. It gives the students a neat overall view of such morphological items as the segmental development of the organism, organ relationships, or peripheral distribution of nerves. It starts them thinking about such physiological problems as circulation and respiration. It needles them successfully to give thought to why these fetuses and babies didn't live longer—discussions often involve obstetrics, pediatrics, and what our English friends refer to as "social medicine."

2. The second means of approaching our goal is the time-honored lecture. Throughout the semester there are talks to the whole class every Wednesday morning. These are mostly informal, sometimes include patient demonstrations, and often include visual aids of one sort or another. Not infrequently there is lively participation by the students, whose questions lead to useful discussions. These talks may be divided into three categories.

The first is a fairly systematic covering of physical growth—a descrip-

tion of the changes in structures from the small fetus, through childhood, into late adult life. We try to make this series of presentations something more than just so many measurements. We are concerned with the dynamic picture of the patterns of change in the body and how one can analyze and evaluate them with meaning for the individual person who will be the physician's patient.

The second category involves the discussion of the psychological development of human beings. Here we are concerned with dynamic patterns—with the process by which each child is becoming the kind of adult he is to be. The student is stimulated to think about how both the physician and the patient developed into the kind of people they are. There are usually lively discussions about doctor-patient relationships. This year we are trying to handle this particular series of discussions by means of a few lectures and a dozen seminars in which one physician handles eight to 10 students each Wednesday. Recently one of the students described the discussions of personality development as "a healthy antidote to the long hours of dissecting a broken-down adult cadaver."

The third group of talks is much more heterogeneous in subject matter. It involves teachers from physiology, biochemistry, biophysics, internal medicine, pediatrics, obstetrics, preventive medicine and public health, and from various divisions of the Child Research Council. No attempt is made to dictate or control the subject matter of these talks. There is a somewhat irregular alternation between lecturers from the basic sciences and the clinical fields. Most of the clinicians bring a patient or two for demonstration. The scien-

tists may either discuss the physiological aspect of the problem presented by the clinician or, perhaps, give the students a glimpse of how workers in their discipline have succeeded in contributing to our knowledge of the mechanisms of adaptation during development. In either case this series of talks is more concerned with the endless adaptations of the human organism than with growth *per se*.

It is difficult to describe this third series because it is never the same from year to year—and because there are often surprises. For example, last year Dr. Boyd talked about physical growth, Dr. Puck talked about research in biophysics, and Dr. Benjamin talked about personality development. All of them talked about genetics during the same week, each lecturer attending the lectures of the other two. Or, again, Dr. Mackenzie, listening to a pediatrician present a five-year-old girl with really quite extraordinary adaptation to blindness due to retrolental fibroplasia, was stimulated into changing the subject of his talk on biochemical phenomena. Instead, he spent an hour discussing the history of how research in the basic sciences had helped solve the problems turned up by the physician handling sick patients. His final account of the current search for the cause of retrolental fibroplasia was tremendously stimulating to the students.

As a final example I might mention a man of 35 years, suffering from diabetes since the age of 12 years, demonstrated to the students by Dr. Holmes. The patient himself began to converse directly with individual students and proved to be an exciting, if naive, teacher. At one point a student asked in what way the diabetes had been a handicap to

the continuation of his schooling. The patient shot back at him, "Did you ever try to get a teacher to let you go to the toilet every 15 to 20 minutes all day?"

3. The third sort of exercise to which we expose the freshmen consists of a series of demonstrations. These are varied in the extreme. Some are with the class as a whole. For example, Dr. Dinken brings patients from his department of physical medicine and rehabilitation, with post-polio muscle disabilities of the arm and shoulder girdle, to the anatomy amphitheater at the time when the students are dissecting those muscles on their cadavers. Other demonstrations are with groups of six or eight students, as when Dr. Maresh of the Child Research Council shows long series of x-rays of various parts of the bony skeleton on the same individual person from birth to maturity. We have tried to keep these sessions flexible, informal and not too well rehearsed. A new man in a speech clinic in the community may be corralled—he tells the freshmen about speech problems and they show him how to dissect the larynx! Or it may be some faculty member has shown some beautiful photographs of human embryos—he is asked to show them to the freshmen. In short, we all try to keep on our toes and be alert for opportunities around us. Thanks to the anatomy department—and especially to Dr. Scharrer's enthusiasm—we have been able to keep our schedule flexible enough to grasp and use many such opportunities as they have presented themselves.

4. The fourth and final means chosen to stimulate thought about medicine as human biology has been a series of seminars and discussion groups led separately by Dr. Edith

Boyd, Dr. Ernst Scharrer and myself. Each group of eight students has one two-hour seminar with Dr. Scharrer. They choose a topic from a prescribed list which takes them to the library in search of reading. The topics in general have to do with research involving the functions of structures studied in anatomy. I had the pleasure this fall of attending one of these at which I heard a discussion of thyroid function which would have done credit to an intern or resident.

Each of these same 10 groups has one two-hour seminar with Dr. Edith Boyd. Here they discuss primarily the application to clinical problems of the concepts presented on growth and development. These sessions are part seminar and part free discussion as the students soon learn to tap Dr. Boyd's extensive experiences in both the basic sciences and clinical medicine. And, finally, each group of eight students has two two-hour discussion sessions with me. These are designed to give the student the utmost freedom to raise questions or air his views on almost any subject which seems significant and relevant to the task of learning how to be a good physician. Frequently the students will wish to discuss further some topic introduced at a Wednesday morning lecture. I do remarkably little talking myself. Using more or less the Socratic method, I counter question with question, needling one student into answering a question raised by one of his fellows. At times, of course, I have to serve as moderator in the discussions or suggest ways in which the disputants may find better answers.

As chairman of the committee which administers this whole series of lectures, seminars, demonstrations and discussions, I have tried to fulfill several functions. I give the first lec-

ture during the first week of school and the last lecture at the end of the semester. Thus, I assume the responsibility for describing the course in prospect and summing up in retrospect. My second function is to attend as many of these exercises as possible with the students. This allows me to serve as a sort of liaison man between the various members of the committee from different departments, and also to enter into the students' discussions more intelligently. By keeping a rough diary of the course each year I can facilitate the discussions of the faculty group as they meet to plan the next year's activities.

This brings me back to a few comments about the two titles I thought of using for this paper. I am sure it is obvious now why I considered the one, "It's Fun to Teach Freshmen." I have enjoyed this teaching assignment more than any other in my 28 years of teaching medical students. The second title, "The Course That's Not a Course," deserves at least a brief explanation.

Interdepartmental Cooperation

This "Introduction to Medicine as Human Biology" was set up seven years ago as a so-called interdepartmental course. This implied correctly that it was to be run by a committee with representation from more than one department of the medical school. Dr. Darley requested that I pick a committee of interested teachers and serve as chairman. I remember that I went wandering around the school like the Ancient Mariner with a tale to tell.

The first year there were nine faculty members, representing six departments, who expressed a desire to take part in the course. This was our committee. Now there are 24 of

us representing 11 departments: anatomy, biochemistry, physiology, biophysics, physical medicine and rehabilitation, preventive medicine and public health, internal medicine, pediatrics, obstetrics, psychiatry and the department for the study of human growth (the academic title of the Child Research Council). Departments are variously represented by professors, associate professors, assistant professors and instructors.

The meetings of this group at the beginning, during or at the end of the semester are almost always lively affairs. Some committee members find the lack of unanimity of opinion rather disconcerting. Several members, including a professor of philosophy, have called some of our meetings a stimulating experience. Frequently discussion has been about as free as in my freshmen discussion groups. With striking differences of opinion as to both goals to be sought and means of reaching a given goal, there has been very little pulling of punches. In spite of this, there has been a remarkable degree of agreement that what we are doing each year has been worthwhile—that we should continue to keep the form flexible—that we should meet again as a committee - discussion group.

Only part of the committee members agree with me that this is not a course in the usually accepted meaning of the word. The following differences may be worth noting. It is not limited to a single field of knowledge or even to one broad discipline. It is not concerned primarily with so-called facts, but rather with a point of view. It makes no pretense of giving an orderly or connected series of factual material from one science but roams over all the disciplines involved in an understanding of how people function at every level of bio-

logical organization. It is not conducted by a single department head with whom the administration can deal. The committee chairman neither assumes this latter responsibility nor attempts any sort of control over the teaching of other members of the committee.

Our academic tradition is such that a "course" implies the existence of certain barriers between one course and another. There is competition for time and space. There are certain rights and prerogatives that go with such an entity—and along with these the resulting limitations. Each professor may have great freedom in developing the subject matter of his own course but is obviously limited in the development of another course under the jurisdiction of another professor. This is probably inevitable, but it is a denial of what we are trying to do in stimulating the freshmen to think about integrating all subject matter pertaining to the development of people.

At risk of being accused of being hopelessly idealistic—or unrealistic—I should like to suggest that the most important function of this committee may be not to build up this course or make it more permanent, but to make it no longer needed. Perhaps it should be more immediately concerned with the education of the faculty—that is, ourselves—than with that of the students. Perhaps the best long-time effect of our committee discussions will turn out to be not a better or new course for freshmen, but the infiltration of a concept into the teaching of all the regular courses taught by members of our committee. If so, then the course might be discontinued while the committee continued to function as an experiment in the dynamics of a group of teachers bent on improving the physician's understanding of how

people "tick," structurally and functionally, in today's society.

Evaluation

I have said almost nothing about the problem of evaluating what we are accomplishing, even though it is something the members of the committee have discussed and worried about for several years. I am sure there is no easy solution—maybe there is no satisfactory way of doing this objectively. At present Dr. Fred Kern has a team, headed by Professor Hammond, working very hard on the problem of how to evaluate the effect upon the students of experience in the general medical clinic at Denver General Hospital. To discuss this problem of evaluation in any useful way would require another paper even longer than this one. I am hopeful that Professor Hammond's group of research workers may get back to the problem of a more adequate evaluation of pre-medical students.

Earlier in the paper I remarked that the caliber of the students and of their teachers was more important than the design of the curriculum. As a result of watching our Child Research Council studies of people growing up, developing, and adapting to their world, I believe that most individuals' patterns of functioning are well developed before they reach medical student age. In many American medical schools today there seems to be a tendency to assume that this is not so—to assume that the best way to turn out better physicians is to build a better curriculum.

I am convinced that, in the long run, the surest path to the graduating of better physicians starts with the selection of the proper men and

women to study medicine—students who have the potentialities for learning how to be good physicians, inspiring teachers and able investigators. I question whether we know how to do this yet. I believe we are capable of gaining much more wisdom in this area if we put our minds to it. I believe that research into ways and means of selecting students who will become good physicians deserves at least as much stimulus and financial support as has been given to the experimenting with new curricula since World War II.

I hope these remarks will not be misunderstood. I am certainly not opposed to making changes in the curriculum. The very best student with the most able teacher will surely have a happier learning experience with a curriculum that is sound as well as adequate for the times in which we live. In spite of this, I feel as though some of our discussions about changes in the curriculum were akin to arguing over which cough syrup to give to a patient, without showing adequate concern for the underlying cause of the cough. This is why I choose to close this paper with a plea.

It is not a plea for less reform of curricula—cough medicine is often a great source of comfort to the patient. It is, rather, a plea for more study of the characteristics which contribute to the development of the kind of physicians, teachers, and investigators whom we need in these next fifty years. Then, in the light of current knowledge of human development, there is the urgent need to give more thought to the whole developmental and educational experience of each student before he is allowed to embark on his premedical studies. How else shall we select wisely the good physician of tomorrow?

Association of American Medical Colleges

MINUTES

OF THE PROCEEDINGS

Sixty-Fourth Annual Meeting

October 26-27-28, 1953

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Sixty-Fourth Annual Meeting Association of American Medical Colleges

Hotel Claridge, Atlantic City, New Jersey

October 26-27-28, 1953

MONDAY, OCTOBER 26, 1953

(President Ward Darley presiding)

Naming of Nominating Committee.....	page 21
Introduction of New Deans.....	page 21
Revision of Constitution and By-Laws.....	page 21
Presidential Address— <i>Ward Darley</i> (to be published in the January issue of the Journal of MEDICAL EDUCATION)	
Highlights of the Institute on the Teaching of Physiology, Pharmacology and Biochemistry.....	page 26
Meeting of Round Table Discussion Groups Names of Group Chairmen.....	page 26
Presentation of Borden Award in the Medical Sciences for 1953.....	page 26
Address— <i>Arthur S. Adams</i> , president, American Council on Education..... (To be published in a later issue of the Journal of MEDICAL EDUCATION.)	page 26

TUESDAY, OCTOBER 27, 1953

(President Ward Darley presiding)

Election of Officers for 1953-54.....	page 27
Address— <i>Alfred Washburn</i> , professor of human growth and development and director, Child Research Council, University of Colorado School of Medicine (see page 9)	
The Chief Findings and Recommendations of the Survey of Premedical Education— <i>Aura Severinghaus</i> and members of the survey subcommittee.....	page 27
The Chief Findings and Recommendations of the Survey of Medical Education— <i>John Deitrick</i> and members of the survey committee.....	page 27
Open Hearings on Annual Reports of Committees Names of Members of Committees..... (For full reports as acted upon see page 41)	page 27
Medical Audio-Visual Institute Film Program.....	page 28

WEDNESDAY, OCTOBER 28, 1953

(President Ward Darley presiding)

Business Meeting of the Association

Roll Call	page 28
Approval of Minutes of the 63rd Annual Meeting.....	page 28
Report of the Chairman of the Executive Council— <i>Joseph C. Hinsey</i>	page 28
Recommendations of the Executive Council.....	page 32
Report of the Secretary and Editor— <i>Dean F. Smiley</i>	page 32
Report of the Treasurer— <i>John B. Youmans</i>	page 34
Report of the Director of Studies— <i>John M. Stalnaker</i>	page 36
Report of the Director of the Medical Audio-Visual Institute— <i>David S. Ruhe</i>	page 38

Reports and Recommendations of Committees

Audio-Visual Education— <i>Walter A. Bloedorn</i>	page 41
Continuation Education— <i>George N. Aagaard</i>	page 42
Editorial Board— <i>Lowell T. Coggeshall</i>	page 44
Environmental Medicine— <i>William W. Frye</i> (no written report submitted)	
Financial Aid to Medical Education— <i>Vernon W. Lippard</i>	page 44
Graduate Medical Education— <i>Kendall Corbin</i>	page 46
International Relations in Medical Education— <i>Francis Scott Smyth</i>	page 49
Internships and Residencies— <i>John B. Youmans</i>	page 53
Licensure Problems— <i>Charles A. Doan</i>	page 53
Medical Care Plans— <i>Henry B. Mulholland</i>	page 55
Medical Education for National Defense— <i>Stanley W. Olson</i>	page 56
National Emergency Planning— <i>Stockton Kimball</i>	page 59
Planning for Teaching Institutes— <i>George Packer Berry</i> (no written report submitted)	
Public Information— <i>John L. Caughey Jr.</i>	page 60
Student Personnel Practices— <i>Carlyle Jacobsen</i>	page 62
Veterans Administration—Medical School Relationships— <i>R. Hugh Wood</i>	page 64

Reports from Related Organizations

The National Fund for Medical Education— <i>Chase Mellen Jr.</i>	page 65
The American Medical Association Foundation— <i>Hiram Jones</i>	page 65
The Advisory Board for Medical Specialties— <i>B. R. Kirklin</i>	page 66
The National Society for Medical Research— <i>Ralph Rohweder</i>	page 66
The National Intern Matching Program— <i>F. J. Mullin</i>	page 67

Expressions of Appreciation

page 68

Time and Place of 65th Annual Meeting.....

page 68

1954 Teaching Institute on Pathology, Microbiology, Immunology and Genetics.....

page 68

Installation of President for 1953-54.....

page 68

Association Committees and Representatives to Related Organizations for 1953-54.....

page 68

Monday, October 26, 1953

NOMINATING COMMITTEE

The Nominating Committee was named by President Ward Darley as follows: Currier McEwen, chairman; George Packer Berry; Mark Everett; Gordon Scott; Francis Scott Smyth, Rolf Syvertsen.

INTRODUCTION OF NEW DEANS

The following new deans were present and were introduced:

Harold C. Wiggers, Albany Medical College; Dayton J. Edwards (acting dean), Cornell University Medical College; Francis M. Forster, Georgetown University School of Medicine; Edgar A. Pund (president), Medical College of Georgia; Roger A. Harvey (acting dean), University of Illinois College of Medicine; Norman Nelson, State University of Iowa College of Medicine; Phillip Bard, Johns Hopkins University School of Medicine; Roscoe L. Pullen, University of Missouri School of Medicine; Ralph E. Snyder, New York Medical College; Theodore H. Harwood, University of North Dakota School of Medicine; Donald G. Anderson, University of Rochester School of Medicine; James W. Colbert Jr., St. Louis University School of Medicine; Gordon E. Goodhart, University of Southern California School of Medicine; Windsor C. Cutting (acting dean), Stanford University School of Medicine; Joseph M. Hayman, Tufts College Medical School; Thomas H. Hunter, University of Virginia School of Medicine; Mavis P. Kelsey (acting dean), University of Texas Postgraduate School of Medicine; James W. Haviland (acting dean), University of Washington School of Medicine.

Other administrative appointees were Francis R. Manlove, director of medical center, University of Colorado School of Medicine; Joseph C. Hinsey, director of medical center, New York Hospital-Cornell University Medical College; Rev. Paul A. McNally, director of medical center, Georgetown University School of Medicine; J. A. W. Hetrick, president, New York Medical College.

REVISION OF CONSTITUTION AND BY-LAWS

The revised Constitution and By-Laws was approved unanimously as follows:

CONSTITUTION

ARTICLE I

NAME

This organization shall be known as the Association of American Medical Colleges.

ARTICLE II

OBJECT

The object of this Association shall be the advancement of medical education.

ARTICLE III

MEMBERSHIP

Section 1.—Any medical school or college in the United States conforming to the requirements of the Association as expressed in this Constitution and By-Laws is eligible to apply for Institutional Membership.

Any medical school or college in Canada or in present or former possessions of the United States and conforming to the requirements of the Association as expressed in this Constitution and By-Laws is eligible to apply for Affiliate Institutional Membership.

Section 2.—Any person who has demonstrated over a period of years a serious interest in medical education is eligible to apply for Individual Membership.

Any person, organization or agency that has demonstrated over a period of years a serious interest in medical edu-

Minutes of the Proceedings

cation is eligible to apply for Sustaining Membership.

Section 3.—A medical school or college desiring Institutional Membership or Affiliate Institutional Membership in this Association shall make application in writing, giving such details of organization, resources and curriculum as may be prescribed by the Executive Council and expressing its readiness to be inspected. The application shall be submitted to the Executive Council, which may order an inspection. The inspection report and all other information bearing on the applicant for membership shall be submitted to the Executive Council for consideration. The Executive Council shall report its findings to the Association at the next Annual Meeting for action. An affirmative vote of three-fourths of the official representatives of the Institutional members present at such meeting is required for election to Institutional Membership or Affiliate Institutional Membership.

Individuals, organizations or agencies desiring Individual or Sustaining Membership shall make application in writing to the Secretary. Such applications, after being first submitted to the Executive Council for approval, will be presented to the next Annual Meeting for action. An affirmative vote of three-fourths of the official representatives of the Institutional members present at such meeting is required for election to Individual or Sustaining Membership.

Section 4.—Each Institutional or Affiliate Institutional Member may send as many representatives as it desires to the Annual Meeting of the Association, and they shall have the privilege of the floor in all discussions. But each school or college is entitled to only one official representative at all business sessions of the Association. The Dean of the college shall be the official representative unless otherwise provided by the college authorities.

Official representatives of Institutional

Members shall be entitled to vote on all matters.

Official representatives of Affiliate Institutional Members shall have the privilege of the floor in all discussions but shall not be entitled to vote.

Individual Members and representatives of Sustaining Members shall have the privilege of the floor in all discussions but shall not be entitled to vote.

Section 5.—Each Institutional Member shall receive copies of the official minutes of the proceedings of the Annual and Special meetings, such other publications and notices as may be issued and not less than ten or more than fifty departmental copies of each issue of *The Journal of MEDICAL EDUCATION*, as determined by the Executive Council.

Each Affiliate Institutional Member shall receive copies of the official minutes of the proceedings of the Annual and Special meetings, such other publications and notices as may be issued and not less than three or more than twelve departmental copies of each issue of *The Journal of MEDICAL EDUCATION*, as determined by the Executive Council.

Each Individual Member and Sustaining Member shall receive a copy of the official minutes of the proceedings of the Annual and Special meetings, a copy of the Association Directory and one copy of each of the twelve monthly issues of *The Journal of MEDICAL EDUCATION*.

Section 6.—Dues: The Annual dues for Institutional Members shall be \$500, payable not later than February 1 of the current fiscal year. The fiscal year shall be from July 1 to June 30.

Affiliate Institutional Members shall pay annual dues of \$125, Individual Members of \$10, Sustaining Members of \$1,000; same to be payable not later than February 1 of the current fiscal year of the Association.

Section 7.—Any college dropped from Institutional Membership or Affiliate In-

stitutional Membership may be reinstated by the Executive Council, subject to the approval of the Association at a regular session.

Section 8.—Affiliate Institutional Membership: Affiliate Institutional Members shall have all the privileges extended to regular Institutional Members of the Association, except that their representative shall not vote. Representatives of Affiliate Institutional Members may hold appointee offices.

ARTICLE IV

STANDARDS

Section 1.—The Association shall have the power to establish by vote of its membership such educational standards, rules and regulations, governing admission to the study of medicine, the curriculum of study, and the requirements for graduation, as it shall deem necessary for the best interests of medical education and the aims and objects of this Association.

Section 2.—All educational standards and all rules and regulations established by the Association shall be embodied in the By-Laws of the Association and shall be observed by every Institutional Member and Affiliate Institutional Member of the Association.

Section 3.—Any school in Institutional or Affiliate Institutional Membership in the Association which shall violate any part of the Constitution and By-Laws shall be subject to such discipline or penalty as the Association may deem fit and proper.

Section 4.—The Executive Council shall appoint representatives to inspect colleges applying for membership or reinstatement and colleges in membership in the Association at its discretion. The inspection reports, together with recommendations, shall be furnished a responsible authority in the college, and shall

be sent to all members of the Executive Council.

Section 5.—Any medical school or college in Institutional or Affiliate Institutional Membership in the Association, which, on inspection, has been found not to fulfill adequately the conditions for such membership in the Association, may be (a) warned by being placed on "confidential probation" for a period of two years by vote of the Executive Council, (b) placed on "open probation" after a full hearing before the Executive Council and subject to the approval of the Association at a regular Executive Session, or (c) dropped from membership after a full hearing before the Executive Council and subject to the approval of the Association at a regular Executive Session.

Section 6.—Any medical school or college which is a member on "open probation," may be removed from probation and restored to full membership or be dropped from membership by the Executive Council, as warranted by the findings of an inspection, after a full hearing before the Executive Council, subject to the approval of the Association at a regular Executive Session.

ARTICLE V

OFFICERS

Section 1.—The officers of this Association shall be a President, a President-Elect, a Vice President, a Secretary, a Treasurer, a Director of Studies, and seven (7) Executive Council members. The Immediate Past President shall be one of the seven members of the Executive Council for the year immediately following his presidency; the other six will be elected members.

A President-Elect shall be elected annually. He shall serve as President-Elect until the Annual Session next ensuing after his election and shall become President on his installation in the course of

Minutes of the Proceedings

that session, serving thereafter as President until the installation of his successor.

A Vice President, and a Treasurer shall be elected annually, each to serve for one year or until his successor is elected and installed.

A Secretary and a Director of Studies shall be appointed by the Executive Council annually.

Two Executive Council members shall be elected annually, each to serve for three years, or until the election and installation of his successor. An elected Executive Council member shall not serve more than two consecutive terms, but an Executive Council member elected to serve an unexpired term shall not be regarded as having served a term unless he has served at least two years.

If the President dies, resigns or is removed from office, the Vice President shall immediately become President and shall serve for the remainder of that term.

Section 2.—The President shall preside at all meetings and perform such other duties as parliamentary usage in deliberative assemblies and the By-Laws of this Association may require.

Section 3.—The Vice President shall preside in the absence of the President, and perform such other duties as may be prescribed by the Association.

Section 4.—The Secretary shall be in administrative charge of the Central Office of the Association and shall record the proceedings of the meetings of the Association, and shall edit and publish the same. He shall collect the dues, assessments and all other monies due the Association and shall turn them over to the Treasurer, taking his receipt for same. He shall be properly bonded. He shall perform such other duties as may be required of him by the Association or the Executive Council. He shall attend all meetings of the Executive Council, except the closed Executive Ses-

sions, and record the proceedings, but shall have no vote.

Section 5.—The Treasurer shall take charge of all monies that may be received from all sources and deposit the same in the name of the Association of American Medical Colleges in a bank approved by the Executive Council. He shall be properly bonded and draw upon Association funds in payment of budget items duly authorized by the Executive Council, and shall make an annual report to the Association. He shall attend all meetings of the Executive Council and vote as a member of that Council. He shall record the proceedings of the Closed Sessions of the Executive Council.

Section 6.—The Director of Studies shall collect such statistics and conduct such studies for the Association as the Executive Council shall direct. He shall foster the development of student personnel studies in member institutions with the advice of the Committee on Student Personnel Practices. He shall perform such other duties as may be required of him by the Association or the Executive Council. He shall attend all meetings of the Executive Council, except the Closed Executive Sessions, but shall have no vote.

Section 7.—The Executive Council shall consist of six (6) elected members and the following ex-officio members: the President, the President-Elect, the Vice President, the Secretary, the Treasurer, the Director of Studies and the Immediate Past President. It shall organize after each Annual Meeting and elect a Chairman. After each organization it shall appoint the Secretary, the Director of Studies, the Editor of *The Journal of Medical Education*, official representatives to other organizations, and such committees and staff members as may be deemed necessary.

A quorum shall be a majority of the voting Council members. The Council shall have the power to fix salaries of

the Secretary, the Director of Studies and staff members and disburse funds for purposes pertaining to the affairs of the Association. It shall have the power to act for and on behalf of the Association between its meetings and to fill vacancies occurring in any of the elected offices during the year.

ARTICLE VI

MEETINGS

Section 1.—The Annual Meeting of the Association shall be held at such time and place as the Executive Council may designate.

Section 2.—Official representatives of a majority of the member colleges shall constitute a quorum.

ARTICLE VII

AMENDMENTS

Section 1.—This Constitution shall not be altered or amended except by a written notice to all Institutional Members and all Affiliate Institutional Members at least thirty (30) days previous to a stated meeting and by a vote of two-thirds of all the Institutional Members officially represented at such meeting.

BY-LAWS

Section 1.—The meetings of the Association shall be governed by Robert's Rules of Order, except as provided in the Constitution and By-Laws.

Section 2.—*Requirements for admission:* Admission to medical schools and medical colleges in Institutional or Affiliate Institutional Membership in the Association may be by:

- (1) Satisfactory completion of a minimum of collegiate instruction, as provided below in subsection a: or by
- (2) Examination as provided in subsection b.

Subsection a.—A good general education including the attainment of competence in English, Biology, Chemistry and Physics is essential for the comprehension of the medical school curriculum. For most students this will require three or four years of college education. Superior students may, in selected cases, be considered acceptable for admission to medical school after only two years of collegiate work. In all instances, the final judgment as to the admissibility of these superior students will rest with the individual medical school.

Subsection b.—Admission to medical schools and medical colleges in the Association may be by examination.

Examinations for the purpose of admission by this method shall be conducted by institutions acceptable to the Executive Council of the Association, under the following conditions:

- (a) Candidates who have completed two years of collegiate instruction and present evidence of general scholarship of high order, but who lack the credits in certain of the required subjects, may be admitted on passing examinations in these subjects.

Section 2.—*Curriculum:* The fundamental objective of undergraduate medical education shall be to provide a solid foundation for the student's future development. This objective can best be achieved, first by providing the proper setting in which the student can learn, and secondly, by stimulating the student to use this setting to the best advantage.

Undergraduate medical education must permit the student to learn fundamental principles applicable to the whole body of medical knowledge, to acquire habits of reasoned and critical judgment of evidence and experience, and to develop an ability to use these principles wisely in solving problems of health and disease. It should not aim at presenting

Minutes of the Proceedings

the complete detailed, systematic body of knowledge concerning each and every medical and related discipline.

Undergraduate medical education can achieve these aims only if the student plays an active role. It must provide incentive for active learning on the part of the student. This can best be achieved by giving him definite responsibility in real day-to-day problems in health and disease. This responsibility must, of course, be carefully graded to the student's ability and experience and must be exercised under careful guidance by the faculty.

To implement the fundamental objective, undergraduate medical schools must provide an opportunity for the student: (1) to acquire basic professional knowledge, (2) to establish sound habits, of self-education and of accuracy and thoroughness, (3) to attain basic clinical and social skills, (4) to develop sound attitudes, (5) to gain understanding of professional and ethical principles. These five requirements are obviously not distinctly separable, but are mutually interdependent.

Given incentive and opportunity to learn and guidance toward the grasp of principles, with the problems of health and disease as a frame of reference, it is hoped that the student will build the necessary foundation for his career in medicine, be it practice (general or limited), teaching, research, or administration. The student should develop into a responsible professional person, and be able to gain and maintain the confidence and trust of those whom he treats, the respect of those with whom he works, and the support of the community in which he lives.

The curriculum should extend over a period of at least four academic years.

Section 4.—These By-Laws may be amended only by submitting a written copy of the proposed amendment twenty-four (24) hours before action can be

taken on it, and by a two-thirds (2/3) vote of all the Institutional Members officially represented at any Annual Meeting.

INSTITUTE HIGHLIGHTS

Highlights of the recently concluded Institute on the Teaching of Physiology, Pharmacology and Biochemistry were presented by members of the Institute Steering Committee: Julius Comroe, chairman; George Packer Berry, co-chairman; George Acheson; Victor Hall, Eugene Landis and Abraham White.

ROUND TABLE DISCUSSION GROUPS

Eight round table discussions were held concurrently. Groups and their chairmen were:

A. George N. Aagaard, dean of Southwestern Medical School.

B. Julius H. Comroe Jr., professor of physiology and pharmacology, University of Pennsylvania Graduate School of Medicine.

C. Mark R. Everett, dean of the University of Oklahoma School of Medicine.

D. James M. Falkner, dean of Boston University School of Medicine.

E. Daniel T. Rolfe, dean of Meharry Medical College.

F. Edward L. Turner, secretary of the American Medical Association Council on Medical Education and Hospitals.

G. W. Clarke Wescoe, dean of the University of Kansas School of Medicine.

H. William R. Willard, dean of the State University of New York College of Medicine at Syracuse.

THE BORDEN AWARD

The nominating address for the Borden Award in the Medical Sciences was made by Ashley Weech, Borden Award Committee chairman. Presentation of the Award to Dr. Jean Oliver, distinguished service professor at State University of New York, College of Medicine, Brooklyn, was made by W. A. Wentworth, secretary of the Borden Company Foundation.

DINNER ADDRESS

The address at the Annual Dinner of the Association was presented by Arthur S. Adams, president of the American Council on Education.

Tuesday, October 27, 1953

ELECTION OF OFFICERS

Upon recommendation of the Nominating Committee and in the absence of further nominations from the floor, the secretary was instructed to cast a unanimous ballot for the following officers for 1953-54:

For president—Stanley E. Dorst.
For president-elect—Vernon W. Lippard.

For vice president—William S. Middleton.

For treasurer—John B. Youmans.
For elective members of Council for two years—John Z. Bowers, Stockton Kimball.

For elective members of Council for three years—George N. Aagaard, Walter Reese Berryhill.

Other Council members, serving one more year, are Joseph C. Hinsey, Robert A. Moore.

REPORT OF THE SURVEY OF PREMEDICAL EDUCATION

The chief findings and recommendations of the Survey of Premedical Education were discussed by Aura Severinghaus, associate dean, College of Physicians and Surgeons, Columbia University, and a panel of survey subcommittee members: George Packer Berry, Alan W. Brown, Merle Coulter, Harry J. Carman, William E. Cadbury Jr.

REPORT OF THE SURVEY OF MEDICAL EDUCATION

The chief findings and recommendations of the Survey of Medical Education were discussed by John Deitrick, professor of medicine, Jefferson Medical College, and a panel of survey committee members: Donald G. Anderson, Joseph C. Hinsey, Victor Johnson, Herman G. Weiskotten, Stockton Kimball, Robert C. Berson.

OPEN HEARINGS ON ANNUAL REPORTS OF COMMITTEES

Open hearings on annual reports of committees were held as follows:

1. *Audio-Visual Education*—Chairman,

Walter A. Bloedorn; Thomas P. Almy; Clarence de la Chapelle; William W. Frye; Henry M. Morfit; Theodore R. Van Dellen; W. Clarke Wescoe.

2. *Continuation Education*—Chairman, George N. Aagaard; Robert Boggs; James E. McCormack; Samuel Proger; John B. Truslow; Walter Wiggins.

3. *Environmental Medicine*—Chairman, William W. Frye; Duncan W. Clark; Harry F. Dowling; Marion Fay; Maurice Levine; David Rutstein; Leo Simmons.

4. *Financial Aid to Medical Education*—Chairman, Vernon W. Lippard; Walter A. Bloedorn; John Z. Bowers; Charles L. Brown; Alan M. Chesney; Robert A. Moore.

5. *Graduate Medical Education*—Chairman, Kendall Corbin; John Deitrick; Aims C. McGuinness; R. L. Pullen; C. J. Smyth.

6. *International Relations in Medical Education*—Chairman, Francis Scott Smyth; E. Grey Dimond; Ben Eiseman; Frode Jensen; Maxwell E. Lapham; John McK. Mitchell; Elizabeth T. Lam; Harold H. Loucks.

7. *Internships and Residencies*—Chairman, John B. Youmans; D. W. E. Baird; Parker R. Beamer; Walter A. Bloedorn; Warren T. Brown; Charles A. Doan; Gordon E. Goodhart; James E. McCormack; John McK. Mitchell; Otto Mortensen; F. J. Mullin; Hayden C. Nicholson; James P. Tollman; Richard W. Vilter; John F. Waldo; George A. Wolf Jr.; R. Hugh Wood.

8. *Licensure Problems*—Chairman, Charles A. Doan; John P. Hubbard; J. Murray Kinsman; Frank E. Whitacre; Arthur W. Wright; William R. Willard.

9. *Medical Care Plans*—Chairman, Henry B. Mulholland; Frank R. Bradley; Dean A. Clark; John F. Sheehan; Albert Snoke.

10. *National Emergency Planning*—Chairman, Stockton Kimball; Mark R. Everett; Stanley Olson.

11. *Public Information*—Chairman, John L. Caughey; Walter R. Berryhill; James Allan Campbell; Joseph B.

Minutes of the Proceedings

Kelly; Milton Murray; John D. Van Nuys; Ralph Rohweder.

12. *Student Personnel Practices*—Chairman, Carlyle Jacobsen; George Packer Berry; Robert Berson; D. Bailey Calvin; Thomas H. Hunter; Rolf C. Syvertsen.

13. *Veterans Administration—Medical School Relationships*—Chairman, R. Hugh Wood; Harold S. Diehl; A. C. Furstenberg; Currier McEwen; John Truslow; Richard William Vilter.

FILM PROGRAM

Two film programs, arranged by the

Medical Audio-Visual Institute, were held simultaneously, beginning at 9 P.M. One of these included a series of short teaching films on cancer and a longer film on "Principles of Fracture Reduction." The other consisted of a group of general information films in health and an experimental film using new photographic techniques and an artificial soundtrack.

Both programs were arranged and presented by David S. Ruhe and J. Edwin Foster of the Medical Audio-Visual Institute.

Wednesday, October 28, 1953

Business Meeting of the Association

ROLL CALL

All institutional members were represented.

All affiliate members were represented except McGill, Manitoba, Western Ontario, University of the Philippines.

APPROVAL OF MINUTES OF 63RD ANNUAL MEETING

The minutes of the 63rd Annual Meeting, November 10, 11 and 12, 1952, at Colorado Springs, Colo., were approved as published.

REPORT OF THE CHAIRMAN OF THE EXECUTIVE COUNCIL

Summary of Actions Taken at Executive Council Meetings of the Year 1952-1953

JOSEPH C. HINSEY:

November 11, 1952, at Colorado Springs

Dr. Vernon Lippard and John Stalnaker were named as the Association's representatives on a joint committee of four with the other two representatives to be named by the AMA Council on Medical Education and Hospitals to make an extensive study of the financial needs of medical schools.

The following resolutions were approved by the Council and submitted to the open meeting on Wednesday, November 12 where they were unanimously approved:

Resolution I:

Whereas the continuation of high quality of medical education is, at all times, but particularly during the present emergency, in the national interest, and

Whereas a high quality of medical education is directly dependent on an adequate and superior faculty in each school, and

Whereas the present laws, regulations, and procedures of the "medical draft act" have been inadequate to meet many situations that have arisen,

Be it therefore resolved that the Association of American Medical Colleges requests the National Advisory Committee to Selective Service to establish a continuing procedure wherein those most vitally concerned with medical education may advise on desirable revision of present procedures and on the content of any new laws for the drafting of physicians.

Resolution II:

Whereas an experimental program to integrate the teaching of subjects of importance to military medicine and civilian defense has been undertaken in five medical schools in cooperation with government agencies, and

Whereas the initial reports of the program from both students and faculty have been most favorable, and

Whereas, it is desirable in the interests of national defense to continue and possibly to expand this program,

Be it therefore resolved that the Association of American Medical Colleges endorses this experimental approach to preparing medical students in this important area of medical service and care, and recommends that continuing support be given to the program.

February 6 and 7, 1953, in Chicago

Revision of the Constitution and By-Laws of the Association was discussed and the secretary was instructed to bring in a second set of recommendations as to this revision at the next meeting of the Council scheduled for May 29 and 30, 1953, in New York City.

The Council approved the terms of the agreement with the W. K. Kellogg Foundation under which the Association is to receive \$4,000 for the publication of the report of the Conference on Preventive Medicine in Medical Schools, held at Colorado Springs November 3-7, 1952. The secretary was instructed to write a letter of appreciation to the W. K. Kellogg Foundation.

The secretary was instructed to begin building files of:

- (a) Agreements between medical schools and their affiliated hospitals.
- (b) Reports on foreign medical schools.

The suggestion was made that the AAMC Committee on Licensure Problems work jointly with a similar committee to be appointed by the AMA Council on Medical Education and Hospitals. The secretaries of the two councils were instructed to arrange two meetings a year of this joint committee with the Federation of State Medical Boards, one meeting to be held at the time of the AAMC meeting in the fall, one at the time of the Congress on Medical Education and Licensure in February.

May 29 and 30, 1953 in New York City

The budget for the new fiscal year, beginning July 1, 1953, was approved as follows:

		Comparable Figure for 1952-53
(a) General Operations	\$ 62,840	\$ 66,275
(b) Committee on Student Personnel Practices ..	80,000	87,000
(c) Journal of MEDICAL EDUCATION	56,000	57,535
(d) Medical Audio-Visual Institute	25,000*	50,000
	\$223,840	\$260,810

*Of this sum \$10,000 was earmarked for closing out projects under the direction of Dr. David Ruhe; \$15,000 provided for 1953-54 support of operations under the direction of Dr. J. Edwin Foster.

This reduction in budget is a part of a definite effort to define the core activities of the Association and to establish a basic budget which lies well within the powers of the Association to eventually maintain year by year on income from institutional membership, journal advertising, educational testing and individual membership.

A report was made by the chairman of the Joint Committee on Medical Education in Time of National Emergency, Dr. Stockton Kimball. The secretary was instructed to send a letter to all medical school deans informing them of the importance of referring staff deferment problems, which are not solved in a satisfactory manner at the local or state level, to the National Advisory Committee to the Selective Service System.

The chairman of the Committee on Financial Aid to Medical Education, Dr. Vernon W. Lippard, reported (a) progress in the preparation of a questionnaire to go to the medical schools in an effort to determine the amount of additional funds needed, (b) the duplication and mailing of copies of Senate Bill 1153 to all medical college deans with the request that they study it and be willing to give their opinion of it if and when a polling of the deans' opinions became necessary, (c) active efforts on the part of the committee to oppose cutting of Public Health Service teaching grants.

The chairman of the Subcommittee on Medical Education for National Defense, Dr. Stanley Olson, reported that his committee had prepared a descrip-

Minutes of the Proceedings

tion of the MEND program in five medical schools and that copies of this had gone out to all medical schools. He also pointed out that letters have recently gone out from the Army Surgeon General's office to deans of medical schools warning of the impending termination of medical ROTC programs.

Upon the request of Dr. John L. Caughey, chairman of the Committee on Public Information, that committee was authorized (a) to assume responsibility for the publicity and press relations of the 64th Annual Meeting, October 26-28, 1953; (b) to invite the National Fund for Medical Education to designate a member of its staff to sit with the committee as an ex-officio member to provide close liaison for the mutual advantage of the Association and the fund.

Dr. Walter Bloedorn, chairman of the Committee on Audiovisual Education, and Dr. David Ruhe, director of the Medical Audio-Visual Institute, reported on the work and future plans of the Institute. After much discussion it was decided to shift the emphasis in the Institute from film evaluation and film production and experimentation to the distribution and utilization of audio-visual materials of all types.

It was voted that on the basis of a visitation made May 18-21, 1953, the Council would recommend to the Association at its meeting October 26-28, 1953, that the two-year School of Medical Sciences of the University of Saskatchewan be voted into affiliate membership.

A report was received of a meeting held in New York City May 28, 1953, of the Liaison Committee on Medical Education with representatives of the Middle States Association of Colleges and Secondary Schools. Approval was voted of a "Suggested Basis for a Co-operative Program between the Liaison Committee on Medical Education and the Middle States Association of Colleges and Secondary Schools." The secretary was instructed to send four copies of this document to all member colleges. It is expected that comparable cooperative plans may eventually be established with others or all of the six regional accrediting agencies.

Plans for the 1953 Teaching Institute on Physiology, Biochemistry and Pharmacology were discussed.

The secretary was instructed to make further revisions in the Constitution and By-Laws to be presented for adoption at the 64th Annual Meeting.

The secretary was requested to participate, with representatives of the Council on Medical Education and Hospitals of the American Medical Association, in the survey of the Irish medical schools, August 30 through September 6, if he is already planning on being in Europe at that time.

The secretary reported that up to the present time 36 American medical schools have submitted copies of their agreements with affiliated hospitals, and 63 foreign medical schools have submitted bulletins or other like materials in answer to the central office's recent request.

The secretary was authorized to have reprinted by the offset process a number of important articles recently published in the *Journal of MEDICAL EDUCATION* in order to make them available in one volume at low cost to medical schools, foundation executives, the National Fund for Medical Education, etc.

There was considerable discussion concerning the advisability of establishing individual membership in the Association as a means of increasing the usefulness and income of the Association. No definite action was taken but the consensus appeared to be that it would offer many advantages and should be under continuous consideration and study.

The secretary was instructed to write Mrs. A. C. Bachmeyer and Mrs. Reginald Fitz expressing the sorrow and sense of loss suffered by the Council in the deaths of Arthur Bachmeyer and Reginald Fitz.

October 21-24, 1953, Atlantic City

1. The Council confirmed the appointment of Dr. John McK Mitchell to represent the AAMC on the Planning Commission for the Conference on Mental Health to be held October 24-25, 1953, in Washington, D. C.

2. The resignation of Dr. Edward Turner was accepted as of October 1, 1953, since on that date he assumed the secretaryship of the Council on Medical Education and Hospitals of the American Medical Association.

3. The Council voted to cosponsor the Fourth National Conference on Health in Colleges with the American College

Health Association, the National Tuberculosis Association and others. It is planned for May 5-8, 1954, at the Statler Hotel, New York City.

4. Two additional changes were made in the revised version of the Constitution to be submitted to the Association for adoption. These changes were made with the intent of (1) limiting affiliate institutional membership eligibility to medical schools in Canada or in present or former possessions of the U. S.; (2) leaving the decision as to time and place of annual meeting to the Executive Council since the problem of finding suitable hotel arrangements is becoming more difficult as the needs of the Association and its Teaching Institute become more specific and complex.

5. The Council gave its approval to an arrangement by which representatives of the Association and the Council on Medical Education and Hospitals of the AMA would make an evaluation of the University of Maryland's School of Medicine at the same time and in collaboration with the Middle States Association's evaluation of the whole university.

6. It was recommended that upon the basis of a visitation made October 5-9, 1953, the University of North Carolina's School of Medicine at Chapel Hill be voted into membership in the Association as a full four-year college of medicine.

7. It was recommended that the Association vote authority to the Executive Council to receive into affiliate institutional membership the University of British Columbia's Faculty of Medicine and the University of Puerto Rico's School of Medicine, provided the inspection of these schools planned for this year confirm the favorable findings made at inspections carried out at these schools last year.

8. The Council recommended that the 1954 Teaching Institute be held October 10-15; the 65th Annual Meeting October 17-20, both at the French Lick Springs Hotel, French Lick, Ind.

9. A school visitation schedule including 13 schools was approved for 1953-54.

10. The secretary was authorized to procure a full-time associate secretary.

11. The Council expressed its special appreciation to the Markle Foundation and the China Medical Board for their

continued and generous support of the work of the Association.

12. The following Uniform Mechanics of Admission were recommended for all schools except those on quarterly or otherwise unusual registration plans:

Uniform Mechanics of Admission

(A) No acceptances will be made to students more than one year before the start of instruction in the class for which the application is being made.

(B) No deposit will be required before January 15 although acceptances may be offered and students may properly notify the institution of their acceptance of the offer before that time. Deposits made before January 15 will be refunded upon request made prior to January 15.

(C) The form of acceptance will be a simple declaration of intention. Because of the wide variation in the acceptance dates of different medical schools, some students will undoubtedly change their minds after agreeing to accept an early offer. Nothing unethical is implied when a student makes such a change.

(D) The size of the deposit required will not exceed \$100.

(E) The medical school agrees to report promptly to the AAMC office the name of each student when he is offered a place in the class, and before he has had time to accept. Lists of applicants offered a place will be distributed to all medical schools. As soon as possible after January 15, the lists will designate those accepted students who are reported as having made a deposit.

13. The auditor's report for 1952-53 was accepted and approved.

14. Minor revisions in the 1953-54 budget were discussed and approved.

15. The reports of the Committee on International Relations in Medical Education and the Committee on Licensure Problems were given careful consideration. An *ad hoc* committee consisting of the president, president of the Executive Council, president-elect and secretary with the director of studies was appointed to study these reports further and to bring in recommendations for action at the February meeting of the Executive Council.

ACTION: The annual report of the Executive Council was accepted without revision.

COUNCIL RECOMMENDATIONS

The following recommendations in the report of the chairman of the Executive Council were specifically voted upon and approved:

(1) That the School of Medical Sciences of the University of Saskatchewan be voted into full affiliate institutional membership in the Association.

(2) That the University of North Carolina's four-year School of Medicine be voted into full institutional membership in the Association.

(3) That in view of the favorable reports made as the result of recent visitations to these schools, the Council be empowered to vote the University of Puerto Rico School of Medicine and the University of British Columbia School of Medicine into full membership in the Association provided visitations completed during the year confirm the favorable findings of the previous visits.

(4) That a committee consisting of the president, vice president, chairman of the Council and secretary be authorized to employ an associate secretary.

REPORT OF THE SECRETARY AND EDITOR

DEAN F. SMILEY: The past year has been an eventful one for the Association and important changes and advances have been made in many of the Association's varied activities. So important are these changes that I find it necessary to report them under four chief heads.

I. The School Visitation Program

As you know, the various state licensing boards look to our Association and the Council on Medical Education and Hospitals of the AMA for accreditation of the medical schools of the country. Our two groups meet this responsibility by providing, through the Liaison Committee on Medical Education, for joint visitations, joint reports and joint decisions. This is a huge task and those of you who have served on a visitation team or been recently visited are fully aware of the details necessarily involved in making a thorough study of a modern medical school. I am not sure that you all appreciate the additional work involved in writing up the reports.

The main point I wished to make was, however, that this past year we experi-

mented with two types of visitations—full surveys and what might be called limited objective visits, the former requiring five or six days, the latter only one to four days.

In the course of the year eight schools received full surveys and 10 schools received limited-objective visits. The program for 1953-54 calls for eight full surveys and six limited-objective visits. This program will only be possible if you deans, associate deans and assistant deans continue to be willing to donate your time to serve on these visiting teams.

Another important development in this area of accreditation is an exploratory arrangement which has been worked out with the Middle States Association of Colleges and Secondary Schools under which the Liaison Committee representatives will visit the medical school at the same time that that Association's representatives are visiting the University of Maryland to make an overall evaluation. If that arrangement proves practical, similar co-operative arrangements may be made with the other five regional accrediting agencies as recommended by the National Commission on Accrediting as a part of their effort to develop institution-wide accreditation procedures.

II. The Journal and Publications

In January 1953 the Journal began monthly publication and as of October 1953 assumed responsibility for the production of all Association publications, including the Annual Meeting *Proceedings*, the *Directory*, the booklet on "Admission Requirements of American Medical Colleges," and the booklet on "Fellowships, Funds and Prizes for Graduate Medical Work in the United States and Canada."

The Markle Foundation has given the Journal the financial means to continue to grow and improve over the next three years. It becomes now a matter of developing in that three-year period an interest on the part of readers, contributors and advertisers sufficient to guarantee continuity and self-support. The success of this plan hinges upon your willingness to support and promote the newly established individual memberships in the Association, the chief advantage of which is the yearly subscription to the Journal.

The enlarged Editorial Board is doing a fine job of reviewing manuscripts and developing symposium issues. They are not as helpful in submitting editorials and soliciting articles as might be desired. Won't you all keep the Journal of MEDICAL EDUCATION in mind and send us an editorial or a suggestion for an editorial when a problem is "hot" in your mind? And remember we always need well written articles on important subjects in the field of medical education.

III. Assistance to Foreign Students

The extent to which the United States has become a mecca for graduate medical students from all countries outside the Iron Curtain has not yet received the recognition it deserves. The Institute of International Education listed 233 institute-related foreign doctors in the medical specialties and in public health undertaking graduate training in 126 American medical schools and hospitals in the academic year 1952-53. These represent only a select group of physicians who seek one or two years of specialty training and are committed to returning to their own countries, and they make up less than 10 per cent of the total of 2,751 foreign physicians in the United States at the present time.

Cooperating with the Institute of International Education, our Association this past year provided 153 of these selected foreign physicians with copies of our booklet, "Fellowships, Funds and Prizes Available for Graduate Medical Work in the United States and Canada," and through Dr. Leveroo of the AMA Council on Medical Education and Hospitals and through Dean Francis Scott Smyth, chairman of our Committee on International Relations in Medical Education, we gave further assistance in guiding them to residencies, fellowships or visiting scholarships that we hope will be suited to their needs. The list of applicants is steadily growing and it is apparent that the majority must be getting the type of training they came for. A new edition of the fellowship booklet is about ready for the printer. It will carry a foreword for foreign students which will make it very plain that we wish to limit our assistance to those who seek only one or two years of specialty training and are then definitely planning on returning to their own country to teach, to practice and perhaps do research.

IV. Revision of the Organizational Set-up of the Association

It has long been the feeling of many of the Executive Council members that the base of support of the Association was too narrow and should be broadened. With that idea in mind, the Council this year recommended to you a revised Constitution which will provide for the first time for individual and sustaining memberships as well as the previous institutional and affiliate institutional memberships. It is the hope of the Council that 10,000 or more of our medical teachers and others interested in medical education will eventually avail themselves of this opportunity to join the Association as an individual member, receive the monthly issues of the Journal and the yearly issues of the *Proceedings*, and through their \$10 annual dues be willing contributors to the support of the services of the Association. Only when that is accomplished can the Association make any claim to serving all segments of the field of medical education and only then, incidentally, can the Association begin to stand on its own feet, supported by the contributions of those whom it serves.

A number of the foundations have been deeply interested in the work of the Association and they have evidenced that interest with generous grants. They cannot, however, be expected to continue indefinitely to contribute to an Association such as ours unless those whom the Association serves are willing to themselves provide the means of meeting the basic, annually recurring budget.

With this idea in mind the Council went over the Association's budget last May and reduced it to approximately \$217,000 (\$63,000 in support of the secretary's staff; \$80,000 in support of the director of studies' staff; \$56,000 in support of the Journal staff, and \$15,000 in support of the MAVI staff). It is hoped that by means of vigorous and continued promotion efforts this budget can eventually be met by the following sources of income: \$100,000 from individual memberships, \$43,000 from institutional memberships, \$20,000 from sustaining memberships, \$20,000 from advertising, \$27,000 from testing revenue, \$7,000 from subscriptions and miscellaneous sources.

The realities of the situation are very plain. Every effort must be made to in-

Minutes of the Proceedings

crease our individual and sustaining memberships. Until we can do that every temptation to increase our basic budget must be resisted. In the meantime we must continue to seek outside grants, both to fill the gaps in our basic budget in this interim period, and to provide for special projects such as research studies and teaching institutes.

In line with this general policy, efforts are being made to find new quarters for the central office outside the loop, in a lower rent area. It may well be that grant money can be obtained to provide an associate secretary who would devote the major portion of his time to the school visitation program. Such a project will certainly pay good dividends.

I know we will be accused of being too optimistic in our plans looking to self-support. I believe, however, that we should willingly accept the challenge. The opportunity which the Association has, to play a real part in guiding and promoting medical education in this country, is unique. Failure to visualize this opportunity in all its length and breadth would be a much more serious error than to be slightly too optimistic.

ACTION: The annual report of the secretary and editor was accepted without revision.

REPORT OF THE TREASURER

JOHN B. YOUMANS: During the past year the fiscal year of the Association was changed from September 1 to August 31 to July 1 to June 30. This, of course, is reflected in the annual financial report and audit. A full fiscal year's income is shown while expense figures cover only a 10-month period.

In essence, the report for the year shows that the general income, including *unrestricted* gifts and grants, but not special restricted grants, totaled \$139,797.11 compared with \$108,149.48 the previous year, or an increase of \$31,647.63. Since the regular annually recurring income of the Association is almost altogether derived from dues of the member institutions, it is clear that the increase was in the category of *unrestricted* grants or gifts.

Income from investments totaled \$2,441 or \$13 less than last year, and a further decrease may be expected as

the interest rates on short-term securities continue to fall.

The excess of income over expenses for the General Fund of the Association amounted to \$82,251.40, compared with \$14,845.05 last year. This excess again reflects the increase in income through receipt of *unrestricted* gifts and the decreased expenses due to the change in the fiscal year. Transfer of this excess to the General Reserves of the Association increased the balance of the Reserve Fund to \$127,418.18. It is to be noted that from this reserve the amount of \$13,982.86 must be appropriated to cover deficits in the operation of the Medical Audio-Visual Institute and Cancer Grant Project No. CS-9188.

Total assets as of June 30, 1953, totaled \$269,070.82, including restricted funds, compared with \$173,337.58 the previous year, the increase represented for the most part by restricted and non-restricted gifts and grants.

Investments, including short-term securities, totaled \$157,281.75.

Budgets for the current new fiscal year, not including budgets for restricted projects and studies, but including the Journal of MEDICAL EDUCATION, the Medical Audio-Visual Institute and the Committee on Student Personnel Practices, total \$226,840, of which approximately \$66,705 must be paid from reserves. Special restricted budgets will be provided for carry-overs and special grants.

It should be unnecessary to point out once more that the general income of the Association remains constant and that the very valuable special projects and studies, such as the Teaching Institute, are financed by outside funds. The recent change in the Constitution providing for individual and special institutional memberships is designed to aid in increasing the constant reoccurring income and the assistance of all in furthering these memberships is strongly urged.

Details of the finances are contained in the report of the auditors, Horwath and Horwath, printed on the following pages.

Your treasurer again expresses his thanks to all who have aided him in his work.

ACTION: The annual report of the treasurer was accepted without revision.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES
Chicago, Illinois

Consolidated Balance Sheet as at June 30, 1953

Assets

CURRENT ASSETS

Cash		
Petty cash	\$	100.00
On deposit		
First National Bank of Chicago		
General		90,834.67
Operating		11,000.74
Bank of Montreal		1,864.54
TOTAL CASH		<u>\$103,799.95</u>
Accounts Receivable—Employees		81.05
Accounts Receivable—National Intern Matching		
Program, Inc.		212.36
Loan Receivable—National Intern Matching		
Program, Inc.		5,000.00
Deposit—United Air Lines		425.00
Prepaid Insurance		338.98
Postage stamps		455.11
Revolving film fund		1,476.62
		<u>\$111,789.07</u>
Investments		
United States Government bonds—		
Series G—face value	\$	33,000.00
United States Treasury bills—cost		124,281.75
Total investments		<u>157,281.75</u>
TOTAL ASSETS		<u><u>\$269,070.82</u></u>

Liabilities and Reserves

CURRENT LIABILITIES

Federal income tax withheld from employees	\$	1,816.15
Federal retirement tax		538.56
Loan payable to the Committee on Student		
Personnel Practices		5,000.00
		<u>\$ 7,354.71</u>
DEFERRED INCOME		
Membership dues income—1953-1954		125.00
RESERVES FOR RESTRICTED FUNDS		
Schedule A-1		134,172.93
GENERAL FUND RESERVE		
Balance September 1, 1952	\$	45,166.77
Excess of income over expenses		
September 1, 1952 to June 30, 1953		
Exhibit B		82,251.41
		<u>127,418.18</u>
TOTAL LIABILITIES AND RESERVES		<u><u>\$269,070.82</u></u>

Minutes of the Proceedings

Summary of Income and Expenditures for Year Ending June 30, 1953

	Income 1952-53	Expenditures 1952-53	Balance June 30, 1953
Secretary's Office.....	\$139,797.11	\$ 44,868.38	\$ 94,928.73
Journal of MEDICAL EDUCATION.....	34,464.94	47,142.26	(12,677.32)
Committee on Student Personnel Practices.....	104,992.72	54,417.06	50,575.66
Medical Audio-Visual Institute.....	25,000.00	38,623.82	(13,623.82)
TOTAL	<u>\$304,254.77</u>	<u>\$185,203.25</u>	<u>\$119,203.25</u>

Summary of Budgets for 1953-1954

	Grants	Income Other	Total	Salaries	Expenditures Other	Total
Secretary's Office.....	\$ 70,000	\$ 44,565	\$114,565	\$ 21,000	\$ 41,840	\$ 62,840
Journal of MEDICAL EDUCATION.....	—	39,970	39,970	21,000	35,000	56,000
Committee on Student Personnel Practices	—	5,600	5,600	45,000	35,000	80,000
Medical Audio-Visual Institute	—	—	—	19,000	9,000	28,000
TOTAL	<u>\$ 70,000</u>	<u>\$ 90,135</u>	<u>\$160,135</u>	<u>\$106,000</u>	<u>\$120,840</u>	<u>\$226,840</u>

To balance this budget \$44,705 will be transferred from general reserves.

REPORT OF THE DIRECTOR OF STUDIES

JOHN M. STALNAKER: At the annual meeting in 1950, your Executive Council made the director of studies responsible directly to it, and this year you have made a revision in the Constitution to make the director of studies an officer of the Association. These changes can be interpreted as evidences of a recognition of the need for more pertinent information about many of the important issues confronting medical education today and the role the Association can play in helping to solve these issues. I have the privilege of serving as your first director

of studies and present my third annual report.

Because the Committee on Student Personnel Practices outlines its work in progress, my two previous reports have been used as an opportunity for a few general observations, and this practice will be continued here. This report is a personal one. It has not profited by committee review.

In 1951, for example, an attempt was made to show why a study should be made of the central office of the Association—its most appropriate organization, staffing and financing—in order to

provide the membership with needed services. The heightened activities of the committees, including the important work of the teaching institutes, have increased the load of work handled in the central office. An on-going study of the type proposed in 1951 now becomes almost essential. It is a problem to be faced by the new Executive Council.

If one will but review the past reports of the meetings of this Association, he will be impressed with the rapid growth which the Association has undergone in recent years. In five years the expenditures reported at the annual meeting have increased almost five-fold—from \$50,000 to \$225,000. The basic budgets for the year 1953-54, plus the available restricted project money, will total well over \$300,000. Unfortunately, the hard money core or continuing annual income for the total Association activities is at this time only \$85,000. If the Association is to maintain its activities at the present level, some means of insuring continuing grants or other income are essential.

The very rapid growth of the Association and the expansion of its activities, together with the lack of a corresponding growth in the dependable continuing sources of revenue, create problems in the areas handled by the director of studies. The development of an efficient and able staff to conduct the studies depends in part upon the stability and continuity of financial support. The work handled by the director of studies has been adequately supported, but steps need to be taken to develop continuing regular support, and efforts are under way to achieve this result.

In my 1951 report, I suggested also that the function of the official school visitations should be further analyzed. Can the procedure be adjusted to maximize the advisory service aspect of the accrediting function and to utilize the inspections as a means of acquiring and then spreading knowledge about what each school is doing? Recent developments on the national scene, in which all accrediting agencies have been under scrutiny, again direct our attention to the need for periodic review of the accrediting functions of this Association. There is a tendency for accrediting procedures to degenerate into policing functions which, while possibly necessary

in a few cases, can lead to the encouragement of conformity to nonessentials. Visiting groups should encourage new attacks on unsolved teaching and curricular problems, describe methods in use at other schools, foster new outlooks, inspire enthusiasm for teaching and focus attention generally on what is happening to the student in his four-year period at the medical school.

An analysis of the costs of the various divisions of the medical schools is needed. As more and more individuals become interested in medical education and the support of medical education, we can no longer be satisfied with the explanation that the financial analysis is too complex for us to undertake.

There is not at this time appreciation of the values which can accrue to all medical schools from some reasonable uniformity in the details of admission practices and requirements since all schools attract to some extent from the same pool of applicants. More students are interested in medicine as a career than can be accommodated. Therefore, it is only sensible for a student to apply to more than one medical school. The student is understandably somewhat confused when he finds the wide variety of dates for making application and he learns that one school will take action on his application in September, while another delays until the following May or June. Medical schools quite understandably compete for able, well-rounded students. Such students may wonder why some schools act with such haste and bring pressures for early deposits. Let us hope that no one undertakes a study to show how many student deposits are forfeited purely because of conditions over which the student has no control. Eastern undergraduate colleges have seen wisdom in following a uniform policy in regard to acceptances, as have many but not all medical schools. Medical schools can wisely base their individuality on their distinction in teaching, in the quality of students selected, and their ability to experiment judiciously in improving the curriculum. Recognition of the plight of the applying student could be shown by reasonable uniformity by all schools in dates of notification of action on applications. The current competition for able students emphasizes the need for traffic

rules which will help the applicant reach his goal without accident. Self-regulation through common agreement regarding both dates of requiring deposits and the size of the deposit would immediately strengthen the appeal of the medical schools to the undergraduate colleges and their superior students.

The Committee on Student Personnel Practices, although it has not to date completely succeeded in having all members of the AAMC agree to a uniform date for requiring deposits, has other activities under way to improve the relationship between the undergraduate college and the medical school. An "Admission Requirements Booklet," summarizing all requirements, has been prepared annually to assist undergraduate advisers in their work with students who are interested in medicine as a career. The colleges have been given a distribution of the scores of their students on the MCAT, a list of their students applying to medical school along with a report of what happened to their applications, and a list of their students in medical school with a report of their success. Such information is of value to the undergraduate colleges and is stimulating their interest in the medical school problems. Proper utilization of such information will eventually result in a better relationship between the "feeder" institutions and the "consumer" professional schools. The regional conferences held by some medical schools for college representatives have been productive of an improved relationship between medical school and college, and make the work of the committee more effective.

After participating in two institutes on psychiatry and one on preventive medicine, the AAMC held in 1953 its first teaching institute, one on physiology, pharmacology and biochemistry. A series of teaching institutes is planned in which invited teachers in related disciplines come together to exchange experiences and discuss the significant issues of teaching and the learning processes of the medical student. These teaching institutes—really the best type of national faculty meeting—will have an important influence on medical education. The director of studies is serving as general secretary to the various committees concerned with these institutes. While the work involved in preparing

for an institute is much greater than may appear on the surface, the work is opening up new areas in which the Association can be effective in encouraging the improvement of teaching and in influencing large numbers of teachers.

Your director of studies has undertaken activities in several areas—work with the CSPP, work with the committees in preparing for the teaching institutes, work in handling the heavy operations for the intern matching program for the NIMP, and minor work in connection with certain committees of the Association. In addition, by permission of the Executive Council, the director of studies has devoted half-time during 1952-53 to certain studies for the Ford Fund for the Advancement of Education. During 1953-54, this released time from the Association will be spent directly with the Ford Foundation itself. The work concerns certain educational problems involving in part corporate giving to educational work, and in part means of locating and encouraging able students to continue with their education. That these several Association tasks can be handled on a half-time basis reflects the high quality and devotion of the assisting staff.

Work with the Educational Testing Service, the research activities of the College Entrance Examination Board, and certain minor committee or consulting assignments with the National Science Foundation, the National Research Council, the American Psychological Association and the Psychometric Corporation and Society, all help to keep your director of studies in touch with current developments in the research and operational areas pertinent to his work with the Association.

ACTION: The report of the director of studies was accepted without revision.

REPORT OF THE DIRECTOR OF THE MEDICAL AUDIOVISUAL INSTITUTE

DAVID S. RUHE: This second annual operational report of the director of the Medical Audiovisual Institute is delivered in conjunction with the summary report of Dr. Walter A. Bloedorn, chairman of the Committee on Audiovisual Education, which concerns the policies governing the Institute functions.

The Institute's broad program, de-

signed to function in all the basic areas which may create support for medical school education, has operated effectively in its six fields of information and cataloging, consultation and liaison, distribution and utilization, curriculum integration, experimental production and training.

Information and Cataloging: In its pursuit of the establishment of improved national sources of information on medical audiovisual aids, the Institute has continued in its former efforts.

1. The *Journal of Medical Education* has provided a convenient and effective monthly outlet for study articles, news notes and brief evaluative reviews of motion pictures and filmstrips. The staff of the *Journal* has been most helpful in this constant task of audiovisual journalism.

2. The Institute has continued to supply leadership and a major share of the work in the collection and preparation of data for Library of Congress reference cards on medical films and filmstrips. To date the Cooperating Medical Film Agencies being coordinated by the Institute in their supply of data to the library include the American Medical Association, the Academy of Ophthalmology and Otolaryngology, the Wistar Institute of Anatomy and Biology, the American Veterinary Medical Association, the American Hospital Association, et al. From all sources, approximately 700 medical cards have now become available to subscribers through the Library. "Library of Congress Cards—How Do We Use Them?" (JME, May 1953; JEF) reports on the service and its implications to medical users.

3. Spring and fall *Newsouch* mailings of collected medical audiovisual reprints have been sent to the medical school AV coordinators and to selected others.

4. Evaluative reviewing of 22 films under the continuation of the National Heart Institute grant (HTS-5020 [C]) has been completed for preliminary publication. The third and final year of the survey and analysis will begin in late fall. Volume one of the study has been duplicated in complete form and distributed to medical reference libraries. In abridged form as a small book it has been published jointly with the American Heart Association under the title: "Films in the Cardiovascular Diseases."

The volume, "Films in Psychiatry, Psychology and Mental Health," which is the summation of one segment of the Institute's film evaluational studies, was published by the Health Education Council in September. The volume includes four analytic papers on the observations deriving from the study.

Miscellaneous limited evaluative reviewing has been continued in behalf of the circuits program selection, and with the Committee on Visual Instruction of the American Society of Parasitologists.

Consultation and Liaison: The actions of the Institute in seeking to assist medical schools and medical organizations toward better audiovisual concepts and practices have again been extensive. A separate detailed report on consultations has been prepared for the Committee on Audiovisual Education. In sum, the Institute has continued to provide expert consultation within its spheres of competence; 15 schools, 16 medical agencies and six individuals of miscellaneous groups have been officially served during the work year.

In its interorganizational activities the Institute has been very active. It has taken a major role toward developing a formal association among the many medical agencies which have operating audiovisual functions; four informal meetings are culminating in a November 20-21 assembly whose objectives are to create increased knowledge of work done by each organization and to create common sources and exchange of descriptive and evaluative information. Dr. Foster has taken an active role in the UNESCO conference on uniform international sources of motion picture and filmstrip information. As corresponding member, Dr. Ruhe has continued active support of the development of the International Scientific Film Association; the International Scientific Film Association's two journals have reprinted much audiovisual material from *The Journal of Medical Education*. The staff has participated in meetings of the Biological Photographic Association, the Association of Medical Illustrators, the Medical Librarians' Association, the Conference on Preventive Medicine, the American Public Health Association, the American Academy of Pediatrics, the American Physiological Society and the National Education Association.

Medical school liaison effort has increased. Prof. Thomas S. Jones, of the University of Illinois, has continued his consultant services in visits to the southwestern medical schools. Dr. Foster and Dr. Ruhe have visited a high percentage of the schools in behalf of the establishment of the circuits program, but also with concern for other audiovisual problems. A portion of this work is summarized in "A Report on Visits to Medical Schools" (JME, June 1953; TSJ).

The creation of medical school audiovisual coordinators has been of increasing assistance in developing better two-way relationships between Institute and colleges.

Distribution and Utilization: In its development of a pipeline for delivering audiovisual materials quickly and cheaply on demand, the "film publication" program has been permitted to grow at a rate dictated by the availability of new films and by the limitations of money in the revolving fund. Continued study of the proper rationale for solving the special requirements of medical film distribution is under way. Collaboration continues in the selection of medical film acquisitions for the library of the New York State Department of Health and New York State Medical Society.

The first year of the medical audiovisual preview circuits for the medical schools of the United States and Canada is discussed in "Report on Audiovisual Preview Circuits for Medical Colleges" (JME, July 1953; JEF). The new 1953-54 program is already under way, and features short short films. Study continues on the factors which support or detract from this valuable program.

Professor Jones has proceeded far towards the collection and synthesis of data concerning the audiovisual design of classrooms and staff rooms; this data, assembled in collaboration with a consulting architect, is shortly to be published.

Curriculum Integration of Audiovisual Materials: The Audiovisual Committee has stated a policy of relative concentration by the staff upon three areas within the medical curriculum: cancer, cardiovascular diseases, and preventive medicine. Work has continued, therefore, with the Audiovisual Committee of the Coordinators of Cancer Teaching (in the medical schools). The study reported above comprises the work in cardiovas-

cular films. And cooperation at several points is being maintained with the Conference of Professors of Preventive Medicine.

Experimental Production: During the year the dominant project has been the second stage of production of short short films, a project supported by the National Cancer Institute, Public Health Service. Four articles which report the progress of the study were published under the title: "The Short Motion Picture in Medical School Classroom Instruction" (JME 28:2, pp. 49-84, February 1953; DSR et al.). Almost 40 short film units have been or are being completed under this grant, a number of which will be seen on the circuits program. Dr. Norman P. Schenker and Dr. V. F. Bazilauskas are responsible for actual production for the project.

The Georgia maternity project film, "All My Babies," has been completed by George C. Stoney for the Institute under contract with the Georgia State Department of Health; the film is being widely used in support of home delivery services.

A film designed for experimental group psychotherapy with student nurses has been produced by Dr. Floyd S. Cornelson Jr., as a training project with Boston University School of Nursing; "The Cap" is close to completion. Two other projects are also being carried through by Dr. Cornelson: an experimental film study in schizophrenia, and tape recordings of psychotherapeutic sessions, for authentic film reenactments.

Training and Personnel: Floyd S. Cornelson Jr., M.D., has continued his fellowship with the Institute during his psychiatric residency at Boston University, and has completed all but the thesis requirements for his M.A. in (AV) Education.

Adolf Nichtenhauser, M.D., and Sanford Franzblau, M.D., have been responsible for reviewing cardiovascular films.

Mrs. Herta Prager, lawyer and librarian, has assisted in the handling of Library of Congress film card data.

Dr. J. Edwin Foster has assisted at Syracuse University summer session, teaching audiovisual utilization.

Dr. Ruhe has been appointed assistant professor of preventive medicine at the University of Illinois College of Medicine, and has assisted in the curriculum

analysis and revision under way at that school, with particular reference to audiovisual methods and materials.

Audrey Skaife and Mrs. Ingrid Nelson have taken a high degree of initiative in the effective operation of the varied Institute endeavors.

Administration and Finances: The consolidation of the Institute with the Association proper has been helpful in gaining clerical and accounting efficiencies. The assistance of the administrative staff and the treasurer have fostered operational smoothness.

Financial support has derived from the China Medical Board, from the Association and from miscellaneous earnings of the Institute.

Conclusions: Within the limitations of its resources, the Institute appears to have contributed significantly to a better understanding of the ways and means whereby audiovisual tools may help meet the changing demands of medical education.

Action: The report of the director of the Medical Audio-Visual Institute was accepted without revision.

Reports and Recommendations of Committees

REPORT OF THE COMMITTEE ON AUDIOVISUAL EDUCATION

WALTER A. BLOEDORN, chairman: The Committee on Audiovisual Education has again concerned itself primarily with advancing the program of the Medical Audiovisual Institute. This committee report amplifies the report of the director, and relates the specific actions of the committee.

The committee has held two meetings, in November and February; and throughout the year liaison has been maintained between the committee and the Institute staff. The committee has again, as a guiding principle, stressed the development of wider and more direct services by the Institute to the medical colleges.

Institute activities have been increasingly directed toward development of distributional mechanics, approaches to improved utilization within the schools and better sources of audiovisual information. To this end the committee, with the Executive Council and staff, has affirmed the emphasis upon utilization activities in accordance with the limitations of a basic budget reduced to \$25,000 for the fiscal year 1953-54.

The committee has affirmed and advised on the six principal aspects of the Institute program:

- (1) Development of the preview circuits and film publicational programs.
- (2) Systematic visits by the staff to as many medical schools as possible within each year.

- (3) Supply of motion picture card data to the Library of Congress.

- (4) Supply of selected information to the Audiovisual News Section of The Journal of MEDICAL EDUCATION.

- (5) Intensified study of classroom and staffroom physical design, equipment and operation.

- (6) Maximum development and promotion of the short short films concept of motion picture production and utilization for the medical schools.

As a result of interest and support in cancer, cardiovascular diseases and preventive medicine, these areas have received a considerable proportion of the Institute's efforts. It is hoped that support in other special areas of medical education will permit increased activities.

The Committee is of the opinion that audiovisual aids are essential and fundamental and will become increasingly important to medical education.

Action: The report of the Committee on Audiovisual Education was accepted without revision.

J. Edwin Foster was introduced as the new director of the MAVI beginning December 1, 1953. President Darley voiced the appreciation of the Association for the five years of valuable service Dr. Ruhe has given the Association. He also thanked the Public Health Service for their loaning Dr. Ruhe to the Association throughout the period of establishing the MAVI.

REPORT OF THE COMMITTEE ON CONTINUATION EDUCATION

The annual report of the Committee on Continuation Education (George N. Aagaard, chairman) was not read since it was in the hands of each participant in the meeting in mimeographed form. The report follows:

The Association of American Medical Colleges is keenly interested in continuation education of physicians. At the time of graduation, the young physician has only an introduction to the scientific knowledge in a field which is rapidly changing due to the impact of widespread and intense research. The graduate of today may be hopelessly out-of-date within a few years unless his education is a continuing process. The magnitude of the opportunity for continuation education is emphasized by the fact that there are at present in the United States more than 150,000 physicians engaged in private practice. Each of these physicians should continue his education over a period which might average 30 years from graduation to retirement.

Medical schools are interested in the continuing education of all professional workers in the health field including nurses, medical technologists, x-ray technologists, physiotherapists, occupational therapists, medical social service workers and others. These professional workers in paramedical fields also need to keep abreast of the progress of medicine. The medical schools can and should participate.

Types of Continuation Education Activities

Many different types of continuation education activities have already been undertaken by medical schools and professional organizations. These activities may be considered in two large groups: intramural, those taking place on the campus of the medical school or at the medical center; and extramural, those which are presented outside the campus at more or less distant points. Such a classification is not entirely satisfactory, since there are some activities which have both intramural and extramural phases. Publications such as medical school bulletins or journals and radio, TV and motion picture productions, originate on the medical center campus and have their greatest utilization outside the campus, and illustrate this dual

type of activity. A list of the different types of courses is presented below:

Intramural

- Single session (lecture or conference, rounds)
- Series of sessions, (part-time) long
- Organized course, full-time) short
- Consultations by faculty members
- Publications and correspondence
- Radio, TV and motion picture productions
- Single lecture
- Series of lectures (not full-time)
- Organized course (short-long, part-time)
- Consultations by faculty members

Extramural

- Informal visits of physicians et al to medical center
- Bulletins, journals and other publications
- Courses for auxiliary groups—nurses, etc.
- Advice re programs, courses

It should be emphasized that many medical schools make significant contributions to continuation education programs of other organizations by acting in an advisory capacity. Such advice given to planning committees of county or state medical organizations, hospital staffs, and the like may be concerned with subjects, speakers and techniques of presentation.

Conditions Necessary for Success

Careful planning by a staff member who is keenly interested in this phase of medical education is essential if a successful program is to result. The individual responsible for these programs should have sufficient time free of other responsibilities and should be able to call, whenever necessary, upon medical school colleagues for advice concerning subject matter and selection of faculty members best equipped by training and experience to present special subjects. The many necessary details that must be attended to in order to produce a successful program or course are attested by the following partial list of activities: selection of major and minor subject areas; invitation of teachers to present the various aspects of the subject; provision of classrooms, clinics, or other work facilities and necessary audiovisual aids and other tools for the teacher; announcement of courses—proper publicity, establishment and collection of fees, payment of honoraria for faculty members, cooperation with sponsoring organizations, and the publication and

distribution of abstracts and outlines of the presentations.

Stimulating and experienced teachers must participate in continuation courses if these activities are to succeed. The administrators of these programs must not insult the audience of physicians by sending them teachers who are inexperienced, inadequately trained, or poorly prepared to present the subject. In addition to being well qualified in the field both as a scientist and as a teacher, the faculty member must have a real interest in participating in the continuing education of practicing physicians. He must have a respect for his physician students, an understanding of the task which they are attempting, and a realization of the difficulties which they encounter. He must recognize that in many instances they lack an opportunity for contact with medical centers and for personal study. Medical schools must strive to attain the same high standards of teaching in continuation courses that they attain in undergraduate courses.

Courses should be organized to assure the greatest possible *student participation*. When subject matter, faculty and facilities permit, instruction with small groups in the outpatient clinic or on the hospital wards should be utilized. The physician-student should be made to feel that he is in the familiar role of the physician obtaining help from a consultant. The attitude of talking down to the student must never be felt or expressed by the teacher. The physician-student should be motivated by a sincere desire to increase his understanding of the art and science of medicine and to increase his capacity to serve his patient and to increase his enjoyment of rendering that service.

Subjects must be presented because they are timely and significant to the physician audience. If topics and teachers are selected because of the special interests of the teacher or to stimulate the growth of a consultation practice, or to build prestige for the faculty member, declining attendance figures will soon result. Many methods are available to gain information concerning the practicing physician's ideas regarding his own needs in continuation education. Faculty members in close contact with physicians as consultants also can, from their experience, give advice as to those areas

in which the physicians are especially in need of help.

Adequate facilities must be available. These will vary with the type of course being presented. In some instances it may be necessary to have access to patients for demonstration. Audiovisual aids may be necessary and may range from a simple blackboard to a motion picture projector or color television equipment.

Availability to prospective physician-students is essential. This, of course, will vary considerably from one part of the country to another and within the same state and county. It is important that a sufficient number of physicians will be able to attend to justify presentation of the course. Where distances for faculty members to travel are great and numbers of attending physicians are small, it becomes difficult to hold the interest of the faculty and to receive their continued participation.

To be successful, a continuation program must have the *cooperation of interested professional groups*. It must also be coordinated with and integrated into existing continuing educational activities, whether within the medical school or outside of it.

Adequate financial support is, of course, essential. It has been demonstrated in several medical schools that physicians are willing to pay the costs of continuation education. Certainly it is true that the medical schools, already overburdened as they are with financial problems, should not be asked to conduct or participate in programs of continuation education which further deplete already inadequate funds. A variety of techniques have been used to finance continuation courses.

Relationships of Continuation Education

Through a program of continuation education the medical school has an opportunity to relate itself to its graduates throughout their professional careers. Such a relationship results in benefits to the physician-graduate and to the medical school. Continuation education also provides an opportunity for the medical school to work closely with local, state and national medical societies, hospital staffs, health departments and other related groups.

Due to many different factors, there is

Minutes of the Proceedings

a wide variation in the degree to which medical schools at the present time have assumed responsibility for continuation education. Regardless of the extent to which medical schools are at present accepting responsibility for the preparation and presentation of such programs, it seems essential that medical schools should provide leadership in this field. Appropriate members of medical school faculties should participate in all phases of planning programs in which the medical school is asked to participate. There is no need for competition to arise between medical schools and professional societies which are interested in participating in continuation education. This is a field which requires the cooperation and participation of many people with varied backgrounds and talents.

It is important to reemphasize that adequate financial support must be provided for continuation education. These activities must not impose a further financial burden on the university. It must also be emphasized that at present many medical schools bear the cost of administration, faculty salaries, production of such audiovisual aids as lantern slides and motion pictures, and the maintenance of classroom facilities. Wider recognition must be obtained of the fact that these costs are as real as the honoraria and traveling expenses of the faculty participants and that they should be paid by tuition fees for the courses presented.

The program of continuation education affords undergraduate faculty members an opportunity for contact with their graduates after they have left the environment of the medical school to go into the active practice of medicine. Such contacts can be of great benefit to the faculty member and may from time to time result in modification of undergraduate teaching. However, participation in continuation education should not be imposed as an additional burden on an already overworked faculty in either the basic or clinical medical sciences. In most instances the medical school faculty may have to be strengthened as the continuation program grows. Except for a few large metropolitan centers, the number of physicians who can be reached and the size of the continuation program which they can support, as well as the financial structure of the university, require that continua-

tion education activities be a part of the activities of the undergraduate medical school. However, in a few areas the scope of the program and the demand of physicians for educational opportunities may require the establishment of a special postgraduate school of medicine.

Future Opportunities in Continuation Education

The future of continuation education is unlimited. New techniques of communication such as color television may vastly increase its potentials and may extend the influence of the medical school to areas now beyond the reach of a continuation program. Many problems exist, however. One of the greatest of these is the need for some method of evaluation of present accomplishments. It is essential that we evaluate the various techniques now being utilized. Such an evaluation will be difficult to plan and conduct and will require widespread cooperation, participation and support.

Continuation education presents a great challenge and opportunity to the Association of American Medical Colleges and to its constituent medical schools.

This committee recommends:

1. That the Association of American Medical Colleges take steps to set up and conduct an evaluation of the effectiveness of one or more of the forms of continuation education.

2. That the Association of American Medical Colleges encourage its member colleges to provide leadership and assume responsibility in this important field of medical education.

ACTION: The report of the Committee on Continuation Education was referred to the Executive Council for action on its chief recommendations at its February meeting.

EDITORIAL BOARD

Lowell T. Coggeshall, chairman, reported briefly on the year's work of the Editorial Board.

REPORT OF THE COMMITTEE ON FINANCIAL AID TO MEDICAL EDUCATION

VERNON W. LIPPARD, chairman: The problems of financing medical education are well summarized in the report of the President's Commission on the Health Needs of the Nation and Dr. Darley's article, "The Financial Status of Med-

ical Education" (*Jour. Med. Ed.* 28, 11, 1953). This report deals with efforts made during the current year toward solution of some of these problems on a national basis.

Ballot on Federal Aid

In 1949, a ballot of the member schools indicated that with few exceptions they were in favor of supporting legislation which would provide federal aid for operating expenses. During the intervening four years, it became evident that more division of opinion was developing. The policy of the committee has been that it should appear before Congress with assurance that it was speaking for the majority. Therefore, on May 5, 1953, another ballot was distributed with the request that the vote registered represent the opinion of the governing body of each institution. The results of this vote are as follows:

(1) Do you favor federal legislation providing grants for operating expenses of medical schools, assuming that independence in local management and freedom in selection of students is assured?

Yes 45

No 32

Not Answered 2

(Some of both the affirmative and the negative votes were conditional.)

(2) Do you favor federal legislation limited to grants for construction of medical school facilities along the lines of the Hill-Burton bill?

Yes 53

No 23

Not Answered 3

(3) Do you favor continuation, at their present level, of the Public Health Service teaching grants to medical schools?

Yes 74

No 3

Not Answered 2

(4) Do you favor continuation, at their present level, of the Public Health Service research grants to medical schools?

Yes 71

No 6

Not Answered 2

It is apparent that the overwhelming majority of schools recognize the significant contribution to the advancement of medical science and education which is being made by federal grants for research and instruction in limited areas and favor their continuation.

A substantial majority favor federal grants for construction to relieve the serious overcrowding and to overcome the inadequacy of facilities for both instruction and research which exists in many schools.

A definite majority favor federal grants for operating expenses, although there is more division of opinion than there was four years ago. This subject should be discussed at the hearing of the committee and the apparent contradiction in the votes of some schools clarified. The question which we shall have to answer is, "Why should you favor teaching grants in limited areas, such as cancer and psychiatry, and oppose grants which could be used to strengthen the educational program of the school as a whole?"

Federal Legislation

The two bills on federal aid to medical education presented to the 83rd Congress which have received most attention are S.1153 and S.461. The former is along the lines of S.337 of the 82nd Congress and a copy has been mailed to the dean of each school. The latter provides for an emergency five-year program of grants and scholarships for postgraduate education in the field of public health and has been supported strongly by the schools of public health. Due to the reluctance of this Congress to enter upon new areas of expenditure of federal funds, it seems unlikely that action will be taken on either of these bills.

The schools rallied actively to support appropriations for continuation of research and teaching grants at current levels and probably had considerable influence.

National Fund for Medical Education and American Medical Education Foundation

The National Fund for Medical Education and the American Medical Education Foundation continued their efforts to obtain funds for support of medical education by voluntary contribution and in July had distributed a total of \$1,944,151. Of this amount, \$1,044,602 represented the contribution of the profession and \$899,549 the contribution of industry.

An encouraging event in the development of the National Fund was a favorable decision in a law suit in New Jersey

Minutes of the Proceedings

in which the right of a corporation to contribute funds to a nonprofit organization for educational purposes was contested.

Committee on Institutional Research Policy of the American Council on Education

This committee, under the chairmanship of President Virgil M. Hancher of the University of Iowa, has been active during the year in exploring the problems raised by the increasing volume of sponsored research conducted in colleges and universities. A preliminary report was published in February 1953, and the chairman of this committee met with the ACE committee to discuss it. At that time, they were inclined to advocate full reimbursement for indirect costs of research financed by foundations, industry or government agencies.

Their report should be of considerable interest to the schools because it advances some sound principles for guiding the development of research programs. Copies may be obtained from the American Council on Education, 1785 Massachusetts Ave., N.W., Washington, D.C.

ACTION: The report of the Committee on Financial Aid to Medical Education was accepted without revision.

REPORT OF THE COMMITTEE ON GRADUATE MEDICAL EDUCATION

KENDALL B. CORBIN, chairman: The Committee on Graduate Medical Education was formed from the Graduate Section of the Committee on Continuation Education at the 1952 fall meeting of the Association of American Medical Colleges.

The committee held its first meeting in Chicago on Sunday afternoon, February 8, 1953. Most of the time was devoted to a discussion of the term "graduate medical education" and the following definition was accepted:

GRADUATE MEDICAL EDUCATION is defined, for the purpose of this committee, as organized full-time post-internship training in the clinical specialties (including the clinical laboratory sciences), which prepares the physician for specialty practice and which may or may not qualify him for an advanced degree.

The majority of the committee believe that the term "graduate medical

education" should include residency and fellowship programs, but that it is not intended to include short refresher courses, or symposia designed, for the most part, for the general practitioner; the latter short-term courses constitute postgraduate or continuation education. The importance of graduate medical training as a significant part of medical education is pointed up by the observation that over half of those now completing medical school are entering specialty training programs of from two to four years' duration and leading to American board qualification. Thus, the period of time spent in graduate or residency work is often the equivalent of that devoted to undergraduate medical education.

The Executive Council of the Association asked that this committee "determine what advanced degrees are given in American medical schools for graduate work done in medicine." Consequently, a questionnaire was submitted to all American medical schools and the resultant information summarized. All but seven schools replied; however, an attempt was made to obtain information regarding the graduate program in these seven institutions from their school bulletins.

Of the 72 four-year medical schools in the United States, 31 offer individuals holding the M.D. degree the opportunity to earn an advanced academic degree in one or more clinical fields (see table 1, page 48). Most schools, including those offering only the first two years of medicine, provide opportunities for graduate work in the pre-clinical basic sciences; this aspect of graduate work was not investigated. One school offers graduate clinical work only in industrial medicine, another only in surgery, others limit themselves to a few of the specialties and 21 offer degrees in most of the clinical specialties.

The medical schools providing graduate training in clinical fields do so, for the most part, through the graduate school of the sponsoring university; the graduate school office keeps the records, arranges for the program and grants the degree. In most of these schools, the student's program is directly supervised by senior members of the major clinical department who are also on the graduate school faculty.

The degrees offered vary from school to school. In 16 of 31 schools offering graduate degrees in clinical fields, the major field of specialization is designated on the diploma; i.e., Master of Science in Surgery, Pediatrics, etc. Other degrees offered are Master of Science, Doctor of Philosophy, Doctor of Industrial Medicine, Doctor of Science, Master of Science and Doctor of Philosophy in Medicine, Master of Medical Science, Doctor of Medical Science, Master and Doctor of Public Health. Certain schools grant the Master's degree in clinical fields but reserve the doctorate for the basic sciences.

Most schools require the M.D. degree and completion of an internship as the basic requirements for admission to graduate study in a clinical field. Some schools also require that the candidate have the baccalaureate degree.

The requirements for a graduate degree in a clinical specialty vary so widely that only brief generalizations will be made here. For the details of the graduate program of any specific school, its graduate bulletin or dean's office should be consulted.

A. Duration

From one to three years' attendance is required to qualify for a graduate degree in a clinical field, the majority of institutions requiring three years. In most instances, a minimum of six months of this time must be spent in a basic science laboratory or in a so-called basic science course. Although it was not always possible to determine from the information given, it appears that most schools offering graduate degrees in clinical medicine do so with the assumption that the clinical training provided by a board-approved residency or fellowship constitutes an integral part of the work for the degree.

B. Thesis

Almost without exception, a thesis must be submitted to qualify for an advanced degree in clinical medicine. In over half of the institutions granting degrees, this thesis must consist of the results of laboratory studies made personally by the candidate. Others permit, in varying degrees, purely clinical studies to be utilized as thesis material.

C. Examinations

Most schools require the successful completion of either or both oral and written examinations covering both the laboratory and clinical fields before the awarding of an advanced degree in clinical medicine.

In summary, approximately 43 per cent of American four-year medical schools, usually through the graduate school of the sponsoring university, offer graduate physicians training in clinical departments leading to advanced academic degrees. Most graduate clinical programs include practical clinical training, as well as experience in a basic science laboratory. A thesis is usually required, covering investigative efforts in a basic science field and examinations, supervised by the graduate faculty, are generally a requisite.

From some of the comments made by those answering the questionnaire, it is obvious that opinion is divided regarding the desirability and justifiability of awarding advanced academic degrees for the practical training usually included in a residency or a fellowship program. Much time might be devoted to a further discussion of the relative academic worthwhileness of a clinico-laboratory apprenticeship versus a purely academic program, and of the proposition that advanced work in medicine may be as scholarly and as erudite as graduate work in any other field, even though the graduate physician spends the majority of his time in purely clinical studies.

For a clinical program to qualify as graduate education it should meet the same standards as are required of graduate courses in other fields. Such criteria may be listed as:

1. Admission limited to superior candidates who have completed approved undergraduate training courses in the requisite fields and who have exhibited evidence of ability, industry, curiosity and perseverance.
2. Adequate physical facilities to provide ample opportunity to review established principles and to carry out worthwhile investigations. Such facilities, in the case of graduate medical education, include modern, well-equipped laboratories, adequate clinical material and easy access to a good medical library.
3. A faculty of recognized author-

TABLE 1

SCHOOLS OFFERING ADVANCED ACADEMIC DEGREES IN ONE OR MORE CLINICAL SPECIALTIES TO GRADUATE PHYSICIANS

Baylor University College of Medicine	University of Nebraska College of Medicine
University of Chicago School of Medicine	New York Medical College
University of Cincinnati College of Medicine ¹	New York University College of Medicine ⁴
University of Colorado School of Medicine	Northwestern University Medical School ¹
Columbia University College of Physicians and Surgeons	Ohio State University College of Medicine
Creighton University School of Medicine	University of Pennsylvania School of Medicine ⁵
Georgetown University School of Medicine	University of Pittsburgh School of Medicine ⁶
Medical College of Georgia	St. Louis University School of Medicine
University of Illinois College of Medicine	University of Southern California School of Medicine
Indiana University School of Medicine ²	Temple University School of Medicine
State University of Iowa College of Medicine	University of Tennessee School of Medicine
University of Kansas School of Medicine	Tulane University of Louisiana School of Medicine
Marquette University School of Medicine	University of Virginia School of Medicine ⁷
College of Medical Evangelists School of Medicine	University of Washington School of Medicine ⁸
University of Michigan Medical School	Wayne University College of Medicine
University of Minnesota Medical School ³	

1. Credit not allowed for clinical work.

2. Anesthesiology and psychiatry only.

3. Degrees also offered through Mayo Foundation, Rochester, Minn.

4. Graduate work in New York University Post-Graduate Medical School.

5. Graduate work in University of Pennsylvania Graduate School of Medicine.

6. Offers only Doctor of Industrial Medicine.

7. Limited program and may be discontinued.

8. Master of Science in Surgery only.

ities who have sufficient time to devote to graduate teaching.

4. The provision of adequate time for student body and faculty to study and pursue independent investigation. This should mean that a clinical residency which offers graduate training must provide sufficient free time for the graduate student to read, to review at first hand at least one of the preclinical basic sciences, and to complete an independent piece of research to be reported in the form of a thesis or publication. Many feel that the graduate physician working for a degree in a clinical field should spend a minimum of six months, full-time, in a basic science laboratory.

5. A continuous and integrated teaching program, in which the graduate student not only is a recipient but also actively participates as a contributor.

6. The acquisition of a body of knowledge in the major and minor fields, assessed by examination at the completion of the graduate program.

The graduate programs reviewed today meet these criteria in extremely varying degrees.

Your committee has also carried out a preliminary survey of the openings in the various clinical specialties as indicated by the requests for physicians made to two of the country's leading medical personnel bureaus. These fig-

ures will be submitted in tabular form when the committee's report is presented orally to the Association.

ACTION: The report of the Committee on Graduate Medical Education was accepted without revision.

REPORT OF THE COMMITTEE ON INTERNATIONAL RELATIONS IN MEDICAL EDUCATION

FRANCIS SCOTT SMYTH, chairman: In both this committee's report and the meeting of last year, concern was expressed regarding the large number of American students in certain European medical schools. Attention was called:

- (A) To the relative ease of admission to many European schools, and
- (B) The different standards in both the selection of students and direction of their experience and discipline

These two subjects are among those to be discussed at the World Medical Association meeting.

The timing of this report does not permit inclusion of pertinent information from the meeting in London of the World Medical Association. It is hoped that the meeting of the Association of American Medical Colleges in general, and this committee in particular, will hear not only from its delegates but from other attending members as well.

In some respects, the current problem of the American student in European medical schools resembles that which arose with the extramural School of Medicine in Edinburgh several years ago, though it is perhaps more extensive and involved. With a phenomenally increased interest in the biological sciences in our country, an abnormal number of applicants for our schools resulted in a large number of rejectees. Added to this, the veteran subsidy for education enabled a larger percentage to study abroad than could otherwise have afforded it.

What was easily anticipated was the pressure from this group of Americans in European schools to gain licensure in the United States. The large number of hospitals accredited for intern and/or resident training, and the relative scarcity of nondraft graduates from our own schools to fill these positions, creates a serious break in the dike. On the one hand, the demand of the military forces

for medical personnel aggravates the shortage, and on the other hand many hospitals have become dependent on house staff for much of their service to patients. The variation in licensure laws between the states and the exemption of some hospitals from general rules regarding internship selection adds to the problem.

While it can be expected that the doctor draft will command the services of some of our Americans graduating from foreign schools, there may be instances where our own graduates are at a disadvantage in securing positions should there be a great influx from foreign schools.

The recent legislation in New York is indicative of the current trend. This legislation permits the hospitals to accept foreign graduates as interns without licensure. Thus, not only our own Americans graduating from foreign schools, but also foreign students themselves become eligible.

This committee has endeavored in the past to be of help in foreign medical education. While sympathetic with displaced persons, etc., it did not consider its function one of aiding the potential immigration of doctors from foreign countries. Indeed, effort has been directed to prevent the abuse of subsidies and exchanges of foreign students where immigration is likely to result, with loss of trained personnel to the foreign country involved.

In the State of California, the chairman was able to obtain the following legislation which, in his state, it is hoped will protect all interests:

"Physicians, with valid visitors' visas issued by the United States of America, who seek postgraduate study in an approved medical school either as a fellow, instructor, or exchange professor, may, after proper application to and approval by the board and receipt of an appointment from the dean of the approved medical school, be permitted by the board to participate in the professional activities of the department in the approved medical school to which they are appointed under the direction of the chairman of the department. Such permission granted by the board shall be for a period not in excess of one year, and must be renewed semi-annually. Except to the extent authorized by this section, no such visiting

Minutes of the Proceedings

physician may treat the sick or afflicted or receive compensation therefor or otherwise engage in or offer to engage in the practice of medicine and surgery."

At the present time, American medical schools are attempting to hold to a high standard of education and training. This is linked quite generally with concern regarding the excessive costs of maintaining the schools on an adequate budget. Hence, the present situation poses a threat to our own institutions, since we would in a sense compete with foreign federalized schools of medicine and/or with schools whose relative costs are much less and whose graduates are trained for a different social setting and economic medium. There is, then, the likelihood of Gresham's law (where two monetary systems exist, the cheaper money will drive out the dearer) undermining our own institutions.

In like manner, when consulted by the secretary of the National Board of Associated Research Councils, your chairman advocated that they not become involved in any *carte blanc* recognition of the hospital internship as a field of study for distinguished foreign scholars under their subsidy. Reference was made to the California legislation and they were urged to individualize such grants as may justify the hospital house staff area as a field of study. The chairman wrote as follows:

"As to classifying 'hospital interns' as advanced scholars, my reaction is one just short of alarm. Certainly, I would not consider the average intern comparable with such men as you have sent before.

"The internship is a hospital service year and is preparatory for practice in this country. At the present time, there are more internships available than we have graduates to fill. Hence, hospitals (except of course the outstanding teaching hospitals) are begging, seeking any who might fill the demand. As you can imagine, many hospitals make this service less one of education and at times sheer exploitation.

"I am alarmed by the recent legislation in New York State which will allow foreign graduates *carte blanc* admission to the internship. My whole thesis has been to aid foreign medical education. This legislation, I fear, will

result in flooding our country with poorly educated physicians (by our standards). Recent years have seen many of our own nationals rejected by our medical schools, but who have been readily admitted to European schools. I strongly suspect the legislation was the result of pressure from this group, but it goes even further and permits the foreign students to fill these positions. Let me illustrate—under the recent government, Australia opened up the medical schools to enormous classes, any who wished to study and well beyond their facilities and faculties.* The result has been a surplus of doctors for their country and quite below our standards of preparation. These men are now seeking to emigrate. This situation finds parallel in certain European states.

"I believe the research councils would do well to exclude the hospital internship and continue a better differential for 'advanced scholars.' The only alternate would be to scrupulously screen both candidate and the hospital to which he would be assigned. Unless this is done, I believe you would become involved in one of the areas of confusion, pressure and, I fear, bitter debate."

That the problem has received some Congressional recognition is evidenced by the following from the AMA *Washington Letter*, dated July 17, 1953:

"The Senate Foreign Relations Committee has received assurances from State Department officials that in negotiating future bilateral treaties the administration will seek to write in exemptions for the professions, including medicine, from the most-favored-nation clause. A number of professional groups have been concerned over treaties that granted reciprocal rights for practice without regard to state licensing regulations. The issue came up during hearings on pending treaties of friendship and commerce with Japan, Israel, Denmark, Greece, Ethiopia and West Germany.

"One proposal drawn up by the Senate committee states that reciprocal national treatment would not be extended 'to professions which, because they involve the performance of functions in a public capacity or in the interest of public health and safety, are

*Exceptions are the University of Melbourne, Australia, and the universities of Otago and Dunedin, New Zealand.

state licensed and reserved by statute or constitution exclusively to citizens of the country, and no most-favored-nation clause in the said treaty shall apply to such professions." State Department officials said they would make every effort to negotiate such a reservation in future treaties and if the Senate desired, it could send the pending treaties back for renegotiation."

Because the role of the hospitals is so important in this question, your chairman sought and, at this writing, expects to talk with some of their officials at the San Francisco meeting of the American Hospital Association, scheduled for August 30-September 4. It is, of course, up to the professional staff of hospitals to control the intern appointments. It is also desirable that the Council on Medical Education and Hospitals should restrict, even backtrack, on the accreditation of hospitals for interns. The deficit is, of course, great in the municipal and state hospitals in the Hospital Council of New York City—so often are departments of mental health in other states.

As an approach not only to this problem, but also to training foreign exchange physicians, the Council on Education and Hospitals of the American Medical Association, with cooperation from some of our membership, has embarked on a program of accreditation of foreign schools. The following letter to the board of trustees of the American Medical Association states the position of your chairman:

"The Council on Medical Education and Hospitals has embarked on a program to accredit certain foreign schools of medicine. I fear that this may prove a futile and heart-breaking task.

"Unquestionably the plan was prompted by the best of motives but I think the techniques involved and the interpretation and pronouncements of the surveys and results will lead to confusion and misunderstanding.

"1. The techniques are those by which we compare the foreign school in curriculum, facilities and faculties with those of our own Class A medical schools. It is at once apparent that, thereby, we imply that the American model is the standard to be emulated by all foreign countries.

"At this time we are acutely aware that our costs are a serious problem at

home. It is therefore apparent that many countries cannot afford the American type of school. Most foreign schools have developed to fit their own professional needs in their particular economic, social medium. This is often in marked contrast with the American medium. Nor do I think any American 'team' of educators, visiting for a short time, can adequately compare and make an adequate differential between two foreign schools referred to the American standard. And I doubt if we can afford the time and effort to devise techniques adequate for such interpolation. In the last analysis, I believe we must appraise the individual graduates rather than attempt accreditation. Do the foreign schools 'accredit' certain American schools? Are the bases for admission comparable? Are the licensure examinations comparable?

"2. Interpretation and use of such accreditation. There will obviously be bitter feelings on the part of foreign schools—many of which may enjoy a long historical reputation—which do not attain accreditation. I doubt if we can afford to become so involved by deigning to pass judgment on the basis of our 'survey.'

"The 'interpretation and pronouncements' from such an accrediting program may also confuse the status of those numerous American nationals who have gained admission to foreign schools of medicine. Many of these students have been rejected by our own schools and unquestionably expect to return for licensure and practice in this country. Easy terms for licensure and 'repatriation' will endanger the standards of our own institutions. By the same token, foreign students—especially from schools abroad which have lower standards for admission and which produce more doctors than are locally needed—will seek on the basis of 'accreditation' to enter this country for permanent residence.

"While I am heartily in favor of exchanges and of improving medical education on a global scale, I do not believe the accreditation program is the proper method of doing so. It is too likely to be interpreted in terms of licensure qualifications and lead to immigration rather than exchange."

This committee has previously urged some clearing-house or registration agency to better appraise the number

Minutes of the Proceedings

of foreign students in the field of medicine. The task, however, is practically impossible to accomplish. For, while certain governmental agencies can account for those whom they subsidize, there is no simple method of estimating the number who come as individuals on their own efforts, or who have been sponsored by private agencies, church groups, etc.

From the Institute of International Education comes this additional information:

A total of 2,751 foreign students were in the United States for study in the field of medicine for the past academic year. Of these, a total of 281 were sponsored by the Institute of International Education—271 were graduates, nine were undergraduates or special students, and one was in a special field but without having obtained his M.D.

It is apparent that a far greater number of foreign students came to study medicine in this country through channels other than those related to federal programs. It would seem desirable to make every effort to obtain cooperation of all agencies in regard to aiding foreign medical education, rather than wholesale immigration of professional personnel. A wide variety of candidates from many parts of the globe have been placed in varying localities and fields for the study of medicine (for the most part, I believe, in the postdoctorate areas), and it is to be hoped with intent and techniques which will necessitate the return of such students to meet the obligations of their own country. It is to be hoped that some study or follow-up will be made to evaluate and perhaps advise or suggest methods to meet further the objectives and design of this program.

Not much progress can be reported in the development of regional liaison between foreign medical schools and appropriate schools in the United States. The affiliation between Washington University (St. Louis) and the medical schools in Thailand is now in its third and final year. The plans for a similar affiliation between Burma and the University of Pennsylvania have fallen through. Discussions regarding a contract between the University of Indonesia Faculty of Medicine in Djakarta and the University of California are still in progress. It is not yet certain

that a contract suitable to the regents of the University of California can be agreed upon. While the actual problem of supplying a temporary faculty is not too difficult, the changes in both the Indonesian and the American governmental organizations (through which such liaison must be effected) prolongs and complicates these deliberations.

A new scholarship program for exchange in the field of medicine between North and South America has been organized under the direction of Alberto Chattas, with financial aid from some of the pharmaceutical industry and with an impressive roster of advisors and directors from the profession.

The United States Department of Public Health and the Pan-American Sanitary Bureau have been interested and concerned with some improved methods of dealing with the South American exchange program. For details regarding the program of the Pan-American and World Health Organization, the readers are referred to Dr. Myron Wegman. Much credit must be given the Kellogg Foundation for their efforts in this field.

The National Academy of Sciences, National Research Council, has announced a program for establishment of international relations centers for scientists and engineers. The Cooperative Research Foundation (CORE) and the California Academy of Science will initiate the first of these centers in San Francisco, August 31, at the Morrison Planetarium. "The center will seek to evolve an active program which will allow scientific and engineering groups in San Francisco to participate in this experiment in international relations."

In closing, attention should be called to the Foreign Student Advisors' Association. While a new organization, it is potentially a powerful one. It is recommended that a representative from the Association of American Medical Colleges be appointed to this organization, and that through such representation the problem of aiding foreign medical education (without fostering an influx or immigration of foreign professionals not fulfilling the policies of the AAMC), be made an active obligation of foreign student advisers.

It was apparent from both the committee opinion and yesterday's hearing that this report requires much more

analysis and discussion. Two committee members felt that the committee would do well to confine itself to the area of the foreign student who comes for advanced training but who does not intend to stay. Others felt that all problems presented in the report would continue to be involved no matter how restricted the scope of the committee might be.

The hearing was honored by several of our guests. We were particularly pleased to have Dr. Southerland, professor of anatomy and dean of faculty at Melbourne, correct some of the implications in the report on page 50. For the record, the Australian schools are not federal but provincial. While the school in N.S.W. has taken, by court order, all qualified students who applied, and while hospital facilities for teaching were not adequate to meet this, Australia as a whole does not meet its own needs for doctors. They have none for export but are eager for exchange between faculties and for their young graduates to come for further training in the United States. The Conference of Residency Councils will be so informed.

We were also pleased to hear from our visitors from Thailand who expressed appreciation of our mutual interests and traditional friendship. Representatives of several of the foundations and federal agencies were in attendance and gave valuable comments and observations.

The chairman believes that the report, while provoking considerable comment and discussion, does not warrant precise recommendations at this time. He does, however, ask the Council to submit the report to special study from which it can be hoped to find suggestions, recommendations or solutions to the problems posed.

ACTION: The recommendations made in the report of the Committee on International Relations were referred to the Executive Council for action at its February meeting.

REPORT OF THE COMMITTEE ON INTERNSHIPS AND RESIDENCIES

JOHN B. YOUNG, chairman: The establishment of the National Intern Matching Program, Inc. during the past year virtually marks the conclusion of that project of the committee. During the year, the committee has continued to answer inquiries, provide informa-

tion, settle disputes and aid the matching plan to secure participation by both students and hospitals.

Following the proposal made to the committee at the last annual meeting in Colorado Springs by representatives of the University of Colorado School of Medicine, that the committee study the possibility of arranging for a separation of dates for the starting of internships and residencies, respectively, the committee has under way such a study in cooperation with the American Hospital Association.

For the last several years the committee, as well as others, has felt increasing concern regarding the internship in relation to its position and purpose in the educational program of the doctor. Last year, the committee, through its members and under the direction of Dr. Jean Curran, prepared a revised and current appraisal of internships which was discussed at the meeting in Colorado Springs. In view of that discussion and the activities of other agencies, no further action has been taken in respect to this matter. However, it is the view of the committee that consideration should be given to undertaking a study of the internship in relation to its educational aspects. Since this is a matter which would require long and careful study and planning, no immediate action has been, or is to be, taken beyond the appointment of a committee to review the situation and make preliminary plans should it be decided to make such a study. Such a preliminary review of the situation is further indicated because current planning by the Association includes the internships in one of the later teaching institutes.

It is expected that these matters will be the subject of discussion at the meeting in Atlantic City in October.

ACTION: The report of the Committee on Internships and Residencies was accepted without revision.

REPORT OF THE COMMITTEE ON LICENSURE PROBLEMS

CHARLES A. DOAN, chairman: We are in the second year of the deliberations of the Committee on Licensure Problems, as originally directed by the Executive Council of the Association of American Medical Colleges at its February 1952 meeting. The first pub-

Minutes of the Proceedings

lic hearing and the first preliminary report were at Colorado Springs on November 11, 1952.

It became apparent at that time that not only the deans and medical faculties were becoming concerned about a growing diversity of opinion regarding medical licensure, but the Federation of State Medical Boards indicated through their representatives at the Colorado Springs meeting that they too had been contemplating the formation of a special committee to restudy the many ramifications of this question.

It was, therefore, agreed that the Association committee members would meet with a designated group from the federation in Chicago at their next annual meeting in February 1953, that together we might consider those phases of mutual interest and concern. This was done with Doctors Shafer, Allman, Charles T. Stone, Poindexter, McCann, Crabb and Walter Bierring as the appointed representatives of the Federation of State Medical Boards of the United States. At this organizational meeting there was a free discussion of the various questions which had been presented in our preliminary report at Colorado Springs the preceding November. It was agreed that each committee would gather additional information regarding these points, and the next meeting would be planned in association with the sessions of the American Medical Association in New York City in June 1953.

In April 1953, a communication was received from Dr. Donald G. Anderson, then secretary of the Council on Medical Education and Hospitals, stating that the council had under advisement for the past year, better ways and means of developing a closer liaison with the Federation of State Medical Boards. Having learned meanwhile, through Dr. Dean Smiley, of the steps which already had been taken to accomplish such a relationship between the Association and the federation, he asked that representatives from the Council on Medical Education and Hospitals be permitted to join in the future deliberations on licensure problems. From these several points of view, diverse concerns and considered judgments, the hope was expressed of eventual agreement upon a series of recommendations which could then be

supported by all three interested groups. Both groups already concerned welcomed this additional representation, so that when the enlarged committee met on June 3, 1953, in New York City, Doctors Donald Anderson, John W. Cline and Harvey Stone were present as representatives of the Council on Medical Education and Hospitals of the American Medical Association. The following subjects were discussed:

1. It was the unanimous opinion of the group that the present joint certification of medical schools by the AAMC and the AMA council should form the basis for admission to examinations for licensure for the practice of medicine in the United States.

2. It was agreed that it would be desirable to have some similar means of certification for foreign medical schools, preferably under the AMA council. The costliness in time and personnel of accomplishing this task was emphasized by Dr. Anderson.

3. Because of the difficulties involved in attempting to evaluate foreign curricula in terms of those currently approved in the medical schools of the United States, a suggestion was made that foreign graduates desiring to practice in this country be required to take both the final fourth year in an acceptable medical school, thus receiving an American medical degree and, also, to serve an approved internship. During these two years a first-hand individual evaluation could be made by both medical school faculties and hospital staffs. Only then would permission be granted to take a medical licensure examination. The objective of such careful screening of foreign physicians is to maintain a high ethical and scientific standard of medical practice in the United States.

4. There was considerable discussion as to whether national board and state board examinations should be universally interchangeable. The question was raised of the legality of accepting the multiple-choice type of examination now given by the National Board of Medical Examiners by certain state boards. At least some of the individual state laws are not so specific but that by changing the rules of procedure and interpretation, the new type of examinations could be accepted in lieu of the essay type. The fact that

some state board examinations cover three full days and some five full days should not interfere with reciprocity, it was thought.

5. The advantages and disadvantages of lay versus medical personnel on the licensing boards were discussed. The composition of the state boards in Washington, Utah and Idaho were considered as illustrations.

6. There was a great deal of discussion regarding the desirability of issuing temporary licenses or limited licenses to graduates of bona fide accredited medical schools who desire graduate training at the intern and residency level in states other than those in which they have taken their basic work and in which they intend eventually to practice. A number of states issue temporary licenses limiting practice to hospitals for educational purposes for a specified period. This seems to make for a much freer interchange between teaching centers and their trainees, more particularly in the specialty training areas. Most of the representatives from states where such a practice is permitted, expressed themselves as feeling this plan has worked in the best interests of all of those concerned with it.

7. A very considerable opposition to the present basic science law requirements for licensure and reciprocity was apparent among those on this committee. It was strongly felt that the original objectives were no longer being served and that all such state laws should be repealed or reinterpreted.

8. It was recognized as a fact that many states are currently reconsidering their respective medical practice acts—most of which were passed many years ago—with the objective of alterations, additions, deletions, or the writing of an entirely new act such as the State of Kentucky has recently accomplished and put into practice. It is recommended that a careful survey be made and that there be prepared a digest and critical evaluation of the objectives which the medical profession wishes to achieve in its licensing procedures. Every certificate issued should be the legal guarantee to the public of the highest ethical standards and best scientific medical practice. It is recommended, furthermore, that there be prepared a concise but comprehensive statement of just

what the "essentials of a modern medical practice act" should be.

It was agreed at the conclusion of this conference that each of the three groups now making up the larger Committee on Licensure Problems report back to their respective appointing agencies with the recommendation that the committee-as-a-whole be continued, in the hope that constructive recommendations may be made eventually to the several agencies and states for their consideration. It is fully recognized that any recommendations or attempts at uniformity of procedure can only be advisory since each state is sovereign in its own right to accept or reject those physicians who desire to practice the art and science of medicine within its borders.

At present there is a state of confusion in these matters which badly needs clarification. A more uniform acceptance of general principles would seem to be in the interest both of the physicians themselves, who desire to practice medicine in this country, and of the people who so urgently need their services.

ACTION: The recommendations made in the report of the Committee on Licensure Problems were referred to the Executive Council for action at its February meeting.

REPORT OF THE COMMITTEE ON MEDICAL CARE PLANS

B. F. MULHOLLAND, chairman: At the last meeting of the Association, a Committee on Medical Care Plans was appointed with the purpose of developing plans for the use of teaching patients and to assist Blue Cross and Blue Shield in the preparation of material on voluntary health and hospital insurance plans for use in medical schools.

It has been impossible to hold a meeting of this committee during the year, and its work, therefore, has been carried on by correspondence. Several members of the committee have communicated with the chairman, indicating that the possibility of a serious shortage of teaching material might develop as a result of extension of Blue Cross and Blue Shield, particularly if this covers indigent and medically indigent patients.

Evidence of local difficulties in this respect was found in New Haven be-

Minutes of the Proceedings

cause of the rather extensive coverage of the population by Blue Shield, and in Boston where trouble was encountered with the local Blue Shield plan. Hearsay suggests that problems of this nature may exist in other areas.

The Committee on Indigent Care of the Council on Medical Service of the American Medical Association is vitally concerned with this aspect of the question. A joint meeting of members representing the Council on Medical Education and Hospitals, Doctors Franklin B. Murphy, Harvey B. Stone, James M. Faulkner, Secretary of the Council Donald G. Anderson, and Associate Secretary Francis R. Manlove, and members of the Indigent Care Committee of the American Medical Association, and Dr. Dean F. Smiley, representing the Association of American Medical Colleges, was held in October 1952, and a full discussion of the subject took place. Certain basic principles received full consideration, and these principles will eventually be recommended to the House of Delegates of the American Medical Association. Suffice to say, these are aimed to protect teaching material.

The Council on Medical Education and Hospitals, with the cooperation of the Committee on Indigent Care, then conducted a survey of the nation's medical schools with regard to this problem. Fifty-eight medical schools replied and only seven reported a decrease in the number of service beds for teaching purposes in the past 10 years, and only five saw any prospect of a decrease in the near future. Residency beds showed even less decrease. Service beds had increased and private beds were being utilized rather extensively. Schools utilizing county or municipal hospitals seemed less disturbed by any feeling of lack of material. Those who foresaw a shortage are planning to relieve these beds by the use of private patients. Health insurance coverage and general prosperity and prohibitive costs were given as causes of any shortage.

From the above, it appears that while this program is an urgent one only in certain local areas, the increasing use of prepayment insurance for physicians' services causes us to believe that the problem is potentially much more serious for the future, particularly as regards residency training. Therefore, further study and discussion of this subject

should be continued with cooperation of the American Medical Association, the American Hospital Association, and the Blue Cross and Blue Shield Plans. It is so recommended.

ACTION: The report of the Committee on Medical Care Plans was accepted without revision.

REPORT OF THE SUB-COMMITTEE ON MEDICAL EDUCATION FOR NATIONAL DEFENSE (MEND)

STANLEY W. OLSON, chairman: There is urgent need to increase the interest of medical school faculties and medical students in the professional knowledge and skills required to cope with medical problems encountered in disasters and wars. In the past, education to improve medical preparedness emphasized military organization and administration. This material was presented to medical students and faculties through ROTC and officer reserve programs. This approach to medical preparedness has not been successful and a desire for improvement has been voiced by students, medical school faculties, deans and the armed forces medical services. This dissatisfaction has led to modification of the armed forces medical reserve program, to the decision to eliminate the medical ROTC program in favor of a more professional approach and to the appointment of this committee to study this problem in the medical schools.

Statement of Objectives

Recognizing (a) the inadequacies of the ROTC program, (b) the failure of many medical graduates to interpret clearly and constructively their responsibility for military service and for participation in the civil defense program, and (c) the need to modify the curricula of medical colleges so as to emphasize appropriately aspects of medicine of growing importance to national defense the aim of the MEND program is: to develop faculty interest in modifying the medical curriculum in ways which will make the student more clearly aware of his responsibilities and role in time of local disaster or national emergency and assist in providing an educational program which will have appropriate emphasis upon professional material of special importance to defense medicine.

Methods Used

During the months prior to the appointment of the MEND committee, no appreciable progress had been made by the vast majority of medical schools in appropriately modifying their curricula in spite of a keen sense of awareness on the part of the deans of these schools for a more specific program to emphasize those aspects of medical education of importance in time of national emergency. The chief difficulty appeared to be lack of funds to engage faculty personnel to assume responsibility for organizing and coordinating such a program.

It was suggested, therefore, that if means could be found to support such a program for a period of several years that practical experience could be obtained to determine whether a sound program for the teaching of military medicine could be developed. The concept then evolved of setting up pilot programs in several schools selected on a geographical basis and divided between privately-supported and tax-supported institutions. The MEND committee proceeded from the basic assumption that whatever was done would have to be soundly conceived from an educational point of view and would have to be consistent with the educational philosophy of each individual school. Therefore, it was agreed that: (a) each school should be free to work out its own program in light of the circumstances prevailing in that institution, (b) the individual program should be worked out through the faculties of the respective institutions, (c) the program should be designed to stimulate the students and to create the appropriate attitudes as well as to teach appropriate material, (d) that emphasis would be placed on professional topics rather than administrative and organizational topics, and (e) that the program would be evaluated as critically as possible.

It appeared that a sum of approximately \$15,000 for each school would be needed on an annual basis to employ a coordinator for the program, to make available funds for faculty personnel to engage in travel to such establishments and professional conferences as could contribute appropriate information, to provide for the necessary travel of committee members during the development phases and, finally, to purchase such

teaching aids as would be required.

Through the cooperation of the medical services of the Army, the Air Force, the Navy and the Armed Forces Medical Policy Council, it was possible to obtain a grant of \$75,000 which provided funds for five pilot programs during the academic year of 1952-53. This grant was allocated in the form of a contract to purchase a series of reports from each of these schools regarding the feasibility of developing a program to improve the teaching of medical subjects of importance during the time of national emergency.

Accordingly, each school proceeded by appointing a coordinator for its program and the coordinators were instructed to use their best judgment in deciding whether to integrate material into courses already scheduled or to develop separate courses for certain of the topics. It was recognized that the majority of their time would have to be spent with the departmental chairmen in their respective institutions, explaining the nature of the pilot programs and soliciting their assistance.

Summaries of the final reports of the first year's operation from each of the five pilot schools may be obtained by writing to these schools.

Evaluation of the First Year of Operation of the MEND Pilot Programs

There were two major areas of emphasis: (a) in the program of the first-year class at the University of California, the University of Illinois and Vanderbilt University, and (b) in the program of all four years at the University of Buffalo and Cornell University.

There were two types of approach: (a) a separate course as at California, and (b) integration into existing courses as at Cornell and Vanderbilt. At Buffalo and Illinois, a combination of the two approaches was employed. In all five schools the students' acceptance of the program was high. Reasons for this included (a) awareness by the students of the increased incidence of accidental trauma, the threat of atomic attack and the eventuality of military service; (b) interest of the students in the clinical applications and the opportunity to think in terms of aiding the ill and injured, and (c) enthusiasm always attending any experiment in education. In all five

Minutes of the Proceedings

schools faculty acceptance of the program was greater than initially anticipated. The degree of passivity or activity of their acceptance varied. Overall, the departments of physiology, bacteriology and surgery took the greatest interest but this followed no constant pattern. Due to the existing crowded and fixed pattern of the curriculum and the preoccupation of the faculty with other problems, it was uniformly evident that without the coordinator the new material, points of view or degree of emphasis achieved could not have been attained.

During the 15 months which followed publication in February 1951 of the report of the subcommittee which made recommendations with respect to the medical curriculum in the time of national emergency, implementation was known to have been attempted in only two medical schools—schools in which the faculty had had special opportunity to be close to the activities of the Department of Defense. By way of contrast, active faculty participation, although of varying degrees, has been achieved in all of the five schools in which the pilot programs were initiated. In all five the program has been actively adopted by the executive or curriculum committees. The initial reasons for faculty acceptance have included patriotism and a sense of responsibility of the faculty to society in the period of this emergency. Such acceptance has been materially assisted by the availability of a financial grant from the Department of Defense which permitted certain faculty members to devote attention to the organization of this area of interest. It is the conviction of all concerned that availability of a teaching grant to each school desirous of initiating such a program is a practical necessity to its activation and implementation.

A considerable increase in the faculty interest in the program has resulted from participation of faculty members in a variety of special conferences, which because of the availability of travel funds in this grant, they were able to attend.

These conferences have included:

Shock.....National Research Council
Forensic Pathology.....
.....Armed Forces Institute of Pathology
Stress.....Army Medical Service Graduate School

Biological Warfare.....
.....Army Medical Service Graduate School
Lepto-spiral Diseases.....
.....Army Medical Service Graduate School
Problems in Blood Transfusion in the Severely Wounded.....
.....Army Medical Service Graduate School

Participation has influenced faculties to realize that clear benefit may be obtained by individual faculty members and by departments through participation in the MEND programs and grants. This experience confirms the original belief of the committee that the information drawn from military experience is often valuable to those engaged in the solution of civilian problems. The expansion of the program to include all of the schools may well set up a mechanism for rapidly transmitting these concepts from military groups to those in civilian medicine.

Advisability of Expansion of the MEND Program to other Medical Schools

Because of the failure of other approaches, because of the long (and perhaps unavoidable) delay which has already occurred, because of the failure of the international situation to improve materially during the past three years, the expansion of the program to improve medical education in areas of disaster and military medicine and surgery cannot be delayed for an indefinite period, even though ideally it might be desirable to postpone such expansion for another two or three years until the experimental program in the pilot schools could have been observed for this additional period and evaluated more accurately than is possible at the present time.

Expansion of the program on a voluntary basis to these schools desiring to participate, will depend upon: (1) approval by the Association of American Medical Colleges and the Council on Medical Education and Hospitals of the American Medical Association of the progress that has been made up to the present time, (2) the availability of funds from the Department of Defense for teaching grants to individual schools, and (3) setting up of certain administrative procedures which will enable all schools participating to have the same opportunity for developing a successful program which has been made avail-

able to the schools engaging in the pilot programs.

Conclusions

The MEND committee concludes after its review of the first year of operation of the program in the five pilot schools that:

(1) There is a well-defined and recognized need for modifications of medical curricula to make medical graduates better able to cope with medical problems encountered in disaster and war.

(2) The underlying philosophy of the MEND pilot programs is consistent with sound concepts of medical education.

(3) The acceptance by the faculties and the student bodies in the pilot schools after one year of operation of the MEND program has been remarkably good. Representatives of the armed forces, the United States Public Health Service and the civil defense organization have likewise been favorably impressed with the progress made by the MEND program.

(4) It is apparent that this progress would not have been possible without the financial support which enabled the schools to engage a program coordinator and to defray necessary travelling expenses. Our experience in the past year would seem to indicate that the amount needed for a teaching grant is approximately \$15,000 per year for each school.

(5) The value of close cooperation among the representatives of the armed forces and the opportunity for the coordinators from the several schools to exchange ideas with each other and with the representatives of the governmental agencies has been amply demonstrated. Any program for expansion should make provision for the retention of the basic elements of this fine relationship. This can probably be achieved by setting up regional conferences at certain intervals throughout the year.

(6) It is concluded that the following have been major elements in the success of the MEND program thus far: (a) close coordination among the various branches of the armed forces, (b) the cooperation of the federal agencies with the individual schools, (c) the opportunity afforded faculty members for travel, (d) availability of teaching aids such as films, special military reports and technical manuals.

Recommendations

This committee unanimously recommends that the MEND program be continued in the five schools in which it has already been initiated, and recommends that the program be made available to all medical schools on a voluntary basis as rapidly as possible.

ACTION: The report of the Sub-Committee on Medical Education for National Defense was accepted without revision and the recommendation unanimously approved.

REPORT OF THE COMMITTEE ON NATIONAL EMERGENCY PLANNING

STOCKTON KIMBALL, chairman: The extension of P.L.779, as amended for a two-year period, has been followed by volunteering of medical officers to such a degree that the Armed Forces are now overstaffed to the extent of 750 medical officers. Five hundred additional are commissioned and not called. The number of Priority I, II and of Priority III physicians under age 30 who are now listed as available and acceptable to the Armed Forces are, respectively, 560, 111 and 670. To this will be added, July 1, 1954, the present interns who have not had previous military service. Every effort is being exerted to restrict calls on Priority III to those 30 years of age or under.

Because of the situation above detailed, it is anticipated that no physicians will be accepted into military service until next summer. Because discharges and their replacements extend over a period of months it will presumably be January 1, 1955, before those most available and liable for military service will be called.

Though we are now in a lull, it is important now to look ahead in order to seek to avoid the kind of irregular description of faculties and residencies we have all experienced.

Your committee therefore, has urged upon Selective Service, the National Advisory Committees and the representatives of the Armed Forces that steps be taken so that deferment and calling into service of faculty members and residents be placed on a regular basis corresponding, whenever possible, to the academic or residency year and that the individual and the institution be informed concerning the period of deferment that can be anticipated.

Minutes of the Proceedings

Your committee offers the following resolution in that regard.

RESOLUTION: That the director of the Selective Service System, the chairman of the National Advisory Committee to the Selective Service System and the secretary of the Department of Defense be urged to develop a program whereby the deferment or postponement of and the calling of faculty members and residents into military service be arranged to correspond whenever possible to the normal academic and residency years.

Because experience has shown considerable variability in different parts of the country in the understanding of medical school problems, the following second resolution is proposed by the committee:

Whereas the operation of P.L.779 has caused unnecessary disturbance in faculties in medical schools, and

Whereas the local and state advisory committees are not necessarily comprised of individuals with competence through experience to advise on faculty members, be it hereby

RESOLVED that the chairman of the State Advisory Committee in each state in which a medical school is located be urged to set up an advisory committee to him composed of deans or representatives of each of the medical schools in the state.

It should be noted that such a recommendation has already been made by the National Advisory Committee to the State Advisory Committees. In several states such committees are now functioning effectively. In other states they have never been set up. It is recommended that the schools in these states take up the matter with the chairman of their state advisory committee.

It should be emphasized that any individual question of deferment of a faculty member or resident may be appealed by the dean to the National Advisory Committee to Selective Service which has authority to give advice to the Armed Forces concerning any reserve officer.

Although the processing of special registrants has been discontinued, physicians who because of age are both regular and special registrants are still being processed. At present this applies to physicians 28 years of age or younger. It will extend progressively to those 35 years of age or younger who have been

deferred for study or internship. Such individuals will be offered commissions. If such commission is accepted within 30 days, the officer will be in the reserve and will be available to the Armed Forces on a commissioned rather than on a noncommissioned basis. Any person who does not accept the commission is liable for induction on a noncommission basis.

There can never be alteration in the basis for student deferment. It is essential that entering freshmen achieve 70 or above in the National Selective Service Test or continue to stand in the upper half of their class throughout their last college year preceding entrance into medical school.

Selective Service does not have a policy of permitting medical students to take an additional basic science year, thus extending their course from four to five years. Local boards may, and in various instances have, permitted this in the case of individual students.

Your committee concurs in the recommendation of the Committee for Medical Education for National Defense that the MEND program be continued in the five schools in which it has already been initiated and be made available to all medical schools on a voluntary basis as rapidly as possible.

Your committee is entering into study of a recommendation concerning medical school programs in case of a war emergency and of dislocation resulting from bombing or other destruction.

It will continue to cooperate with and make plans in conjunction with the Joint Committee for Medical Schools in Time of National Emergency.

ACTION: The report of the Committee on National Emergency Planning was approved without revision and both resolutions unanimously adopted.

REPORT OF THE COMMITTEE ON PUBLIC INFORMATION

JOHN L. CAUGHEY JR., chairman: The Committee on Public Information lost a distinguished leader by the resignation of Dr. Loren Chandler in 1952. However, through his foresight the committee was strengthened by the addition of medical public relations experts when it was reorganized for 1953.

The committee met in Chicago on

February 9, 1953. Other business has been transacted by mail.

Activities—1952-53

1. The committee has developed close cooperation with the Medical Seminar of the American College Public Relations Association. There are three members of the committee (Kelly, Murray and Rohweder) who are also members of the Medical Seminar. The chairman of the committee represented the AAMC at the annual meeting of the ACPRA in Salt Lake City in June 1953.

2. The committee requested and received from the Executive Council permission to ask the National Fund for Medical Education to designate a member of its staff to provide liaison with the committee. Chase Mellen Jr. has nominated Raymond O. Torr, a member of the public relations department and editor of the Fund's *Medical Advance*, to sit with the committee.

3. The committee believed it desirable to discover the scope and organization of public information activities in the medical schools. Since a professional PR consultant had already begun a survey of this kind, the committee assisted him in procurement of the necessary data. A very satisfactory return was obtained. The results have been tabulated and copies sent to each of the schools.*

4. Through the efforts of Mr. Rohweder, a preliminary test was made of a plan to gather PR ideas of proved value from individual schools and distribute them for consideration by other schools. A simple questionnaire elicited a good response. Mr. Rohweder has put this material together for the committee, and it is to be distributed at the meeting.

5. The committee voted in February to urge the Executive Council to permit the Annual Meeting to be used as a means of getting the story of medical education before the public. The committee offered to assume responsibility for handling public information aspects of the meeting, if the Council wished to delegate authority to it. This recommendation was approved by the Council in May 1953. With the generous cooperation of the Medical Seminar of

ACPRA, a working subcommittee of professional medical PR staff members, under the chairmanship of Joseph Kelly of Johns Hopkins, was appointed to organize this program.

6. In September 1953, the chairman represented the committee at the AMA Public Relations Institute in Chicago.

Discussion of Current Problems

On all sides the committee has found evidence of a rapidly increasing interest on the part of medical administrators in the problems of public information. This arises not only from the need to mobilize financial support from large numbers of donors, but also because of the progressively more complex relationships of the medical school with the community.

The committee believes that many medical schools would like to improve their public information programs, but hesitate to do so in the absence of adequate budgets and skilled personnel.

The committee is also convinced that on a national level there is much that the AAMC should be doing to tell the story of medical education to the public. This would in no way interfere with the public relations program of the National Fund for Medical Education, but would complement it. There are all too few people, even among our faculties, who appreciate the dynamic history of medical education in this country, and the tremendous efforts which have been and are being made to keep physician training abreast of our advancing knowledge and our changing techniques for the provision of health services.

For these reasons the committee believes that it is of utmost importance that the AAMC organize a public information section in the central office. Only in this way can effective help be given to medical schools which are anxious to improve their public information programs but have no readily available funds or expert personnel. And only by a well-organized effort in the central office can the AAMC meet its obligations to tell the story of medical education on the national level.

Recommendation

The Committee on Public Information, for the reasons stated above, recommends that the establishment of a pub-

*Copies of this report may be obtained from F. Gordon Davis, 1152 Buckingham Rd., Birmingham, Mich.

Minutes of the Proceedings

lic information section in the central office of the AAMC be begun at once, and that funds presently available in the budgets of the Association and the Journal of MEDICAL EDUCATION be redistributed in such a way as to make possible the initiation of this project.

ACTION: The recommendations made in the report of the Committee on Public Information were referred to the Executive Council for action at its February meeting.

REPORT OF THE COMMITTEE ON STUDENT PERSONNEL PRACTICES

CARLYLE JACOBSEN, chairman: The work of the CSPP continues along the lines described in the previous reports made to this Association. Since it was established in 1946, the committee has employed a staff and has gradually become effective in helping, when called upon, in many phases of the work of the Association. At first, the staff was located away from the central office, but since 1948 the staff has operated as an integral part of the regular Association staff. The director of studies for the committee has now become the director of studies for the Association.

The committee's net expenditures for 1952-53 were \$54,400—less by some \$11,000 than for the preceding year (1951-52), but much larger than the \$14,000 spent in the year 1947-48, the first year of operations. This drop in expenditures does not reflect any decrease in staff activity, but rather the extent to which the staff is increasing its efficiency of operation. In addition, the staff handled most of the work for the matching program, the charges for which were billed separately.

The work of the committee has been financed by special grants and by the income from the testing service. Because the testing revenue has been dropping sharply, other sources of revenue are essential if the work of the committee is to be continued. Accordingly, a grant was sought from the John and Mary R. Markle Foundation for support of the committee activities at the rate of \$50,000 a year for three years, starting with the year 1953-54 and this grant was made. It is hoped that during this period testing revenue will be increased and continuing long-range support assured. Then the values accruing from

long-range continuity and planning can be realized.

The committee continues to offer, through the facilities of the Educational Testing Service, the Medical College Admission Test. The committee has complete control over the policies governing this test, its development and administration, and the fees charged. Almost all medical schools make use of this test. The committee plans to undertake some studies and develop some aids for the wisest utilization of the results of this test. Simple correlational studies of the relationship between test scores and medical school grades do not get at the basic problem. The proper use of test results with a highly selected group which has already established its ability to handle classroom work is an involved problem. The test results must be used in conjunction with other evidence and must be fitted into the special conditions peculiar to each school. No simple widely-applicable formula is possible.

The committee continues to recognize the vital role played by motivation and personal emotional adjustment and stability in determining the success of the student, not only in medical school but also in his role as a practicing physician. It is following closely the research and development work being done in these areas. At this time, no easy measures suitable for general use have been developed.

The study of the students applying to medical school is one of the large continuing studies undertaken by the committee. As one phase of the study, there were 12 cumulative lists of accepted applicants published in 1952-53 and sent to each medical school. The final list, mailed on June 12, 1953, contained 7,049 names of accepted applicants.

This important study of applicants is dependent upon prompt, thorough, and accurate reports by the medical schools. The cooperation of the medical schools has been excellent. As the central staff operations improve (and each year has seen significant improvements), the cooperation of the medical school groups also has improved.

It is expected that the gross general statistics on applicants for the class entering for the freshman year 1953-54 will be available about November 1, 1953. Again a drop in the total number

of applicants is anticipated, for the fourth consecutive year. A complete report of the results is scheduled for publication in an early issue of the *Journal of Medical Education*. This year it is planned to analyze the figures by regions since the students in some regions are very much more active in seeking admission than are those in other regions. Average figures tend to conceal some of these striking differences.

One of the studies made from the applicant statistics this year resulted in an individual confidential report to each medical school showing the number of its applicants who applied to each of the other medical schools. This report is believed by the committee to be of value and to contain information not elsewhere available, but its value will vary with the school. It is planned to repeat this study.

The committee has long been concerned with the smooth transition of the student from college to medical school, and with seeing that the colleges know of the opportunities in medical school. A sympathetic and intelligent understanding between the undergraduate college and the medical school and the appreciation by each of the problems of the other are highly desirable.

To facilitate better understanding, the committee has published an admission requirements booklet. The fourth edition of the booklet is now in press and will be available at the time of the Annual Meeting. It is distributed free to undergraduate advisors and sold to students and others interested. The booklet presents authoritative and helpful information to students interested in the study of medicine.

The committee continues its practice of sending each undergraduate college a distribution of the scores for its students on the MCAT. In addition, this year each college was sent a list by name of its applicants to medical school and the number of acceptances received by each. This report aroused considerable interest as indicated by the resulting correspondence. Improvements in this report form are planned and a similar report to the colleges scheduled for 1953-54.

Each undergraduate college also was sent a list of each of its students now in medical school or who dropped out of medical school and an indication of

the success of each student. These reports are of interest to the colleges and are being carefully studied in many cases.

Through the several means here reported, the colleges are being given information about medical education, about their applicants to medical schools and about the progress in medical school of the men they have trained. The committee seeks to do what it can to encourage the colleges to be interested in medical school for its able students and to be informed about the possibilities. These services are not all easily performed, but it is believed they are accomplishing results and constitute the type of public relations which will foster productive understanding between college and medical school.

The central office records are being maintained and are being put into such shape that studies of various types will be readily possible. The study of drop-outs, scheduled for publication sometime ago, is still in progress and should be published within a few months.

A study is now in progress on the older students who have been admitted to medical school to determine what degree of success they have. Since 1945, almost 500 students of 35 years of age or older have been admitted to medical school. The number admitted each year has been decreasing, however, as has the number of medical schools admitting these older students. It appears that the drop-out rate among this group is relatively high.

The committee has not studied further the faculty information it received from the medical schools. This basic information was turned over to a government agency and two valuable studies resulted, both of which have been reported by Dr. Diehl in the *Journal of Medical Education*. A recirculation of the faculty may prove desirable this next year. The committee recognizes the need to know as much as possible about the facilities of our schools and believes that additional fruitful studies are possible in this area.

A study is now being completed on the cost to the student of going to medical school. A sample of 26 medical schools was selected and the entire student body at each of these schools asked to complete a confidential financial questionnaire. A summary of the results will

Minutes of the Proceedings

be published. On the basis of incomplete results, it appears that the average annual expense, exclusive of tuition will be \$1,500 including about \$150 for books and \$1,350 for living expense. Variation among the schools sampled, however, is striking. For one school, the average was \$1,200 while at another it was \$1,850. Almost a third of the students were married and the wives of this group are the chief source of support for the medical student husbands. For the married students who have children the situation is different. Parents are the usual source of support for most students. Loans from medical schools appear to be of little importance. About 50 per cent of the students have fathers whose occupation can be classified as professional, executive or managerial. On the other hand, about a quarter of the students report coming from families where the gross annual income is under \$5,000. At one medical school, about one-third of the students report a family income of under \$5,000, but at another school about 40 per cent come from homes where the annual income is more than \$10,000.

A study of women graduates has been undertaken and is in progress. With the help of the AMA records and of Dr. Dickinson's office, a sample of 1,000 male and 2,000 female physicians who graduated between 1925 and 1940 was selected and circularized. A duplicated, follow-up letter was sent to the non-responders, and to those still not answering an individually typed and personally signed letter was sent. Returns are still being received.

A staff study of the available literature concerning Negroes in medical education has been completed. This background study has been undertaken for office use. The literature on the subject is diffuse and seldom authoritative.

The committee invited the use of the Briggs-Myers inventory—a personality assessment device—by a few interested schools and has been studying the results. Studies of the results do not appear to be encouraging.

The committee offers to junior medical students the Strong vocational preference blank for medical specialties at a cost of \$3 per student. This test is believed by the committee to have merit and to be helpful with many students. The committee plans to continue to offer

the test and to encourage its use among interested students.

The work of the committee is handled by the director of studies of the Association and his staff. The Executive Council has released the director of studies half-time so that he could do consulting work for the Ford Fund for the Advancement of Education in 1952-53 and in 1953-54 directly for the Ford Foundation itself. In addition, the director of studies has been loaned at no charge to the NIMP to direct the operations of the matching program and has served as secretary to the various committees concerned with the 1953 Teaching Institute on Physiology, Pharmacology and Biochemistry. He also works directly with and for the Educational Testing Service in all matters concerning the Medical College Admission Test.

Pressure of other activities has postponed the review and planning sessions of the committee scheduled for 1952-53, but the need for laying plans for continued effective operations for the next several years still exists and the committee hopes that such plans can be made in 1953-54.

ACTION: The report of the Committee on Student Personnel Practices was accepted without revision.

REPORT OF THE COMMITTEE ON VETERANS ADMINISTRATION—MEDICAL SCHOOL RELATIONSHIPS

R. HUGH WOOD, chairman: During the past year the reorganization of the Veterans Administration has been accomplished. This change embodies all the principal recommendations made by the AAMC during the past two years. It should provide a highly satisfactory mechanism by which the hospitals can deal directly with the chief medical director.

No problems of national significance have arisen during the past year.

As new hospitals are built and new research laboratories in Veterans Administration hospitals are opened, more money for research and education will be needed. The appropriations in these two categories have not increased in proportion to the number of laboratories in operation.

Attention must be given to increase in salaries for key professional personnel if the Veterans Administration is to

retain the high quality of men or chiefs of service it has had in the past.

ACTION: The report of the Committee

on Veterans Administration — Medical School Relationships was accepted without revision.

Reports from Related Organizations

(The following reports are condensed from reports submitted to the Association of American Medical Colleges at the time of the Annual Meeting.)

NATIONAL FUND FOR MEDICAL EDUCATION

CHASE MELLEN JR., executive vice president and director: Grants to the fund so far this year amount to \$1,944,151.64, bringing to nearly \$5 million the total awarded since the fund was started. About half of this has been contributed by the medical profession through the American Medical Education Foundation and the balance by business corporations.

Last winter, under sponsorship of its Committee of American Industry, the fund held nine meetings of business leaders and medical educators. This November meetings will be held in Milwaukee, Minneapolis, Indianapolis, Cincinnati, Omaha, Birmingham and New York.

As a link between business and medical schools, the fund has formed a Medical Advisory Committee of 442 industrial physicians. Its job is to interpret the needs of the medical schools to industry and the needs of industry to the medical schools. A series of regional meetings is being planned to bring together corporation executives and medical educators for discussion of their joint responsibility for improvement of the American people's health and living standards.

At present the fund is seeking the help of the medical schools in strengthening its appeal to corporations, many of which are reluctant to make more than token contributions to what they feel is

deficit financing. Instead, they want to feel they are helping to advance medical science. We need to show that corporation funds will help support teaching developments and projects calculated to bring medical education into line with future needs.

The answer to what these projects are to be must come from the schools themselves. The Deitrick report implied, if it did not actually say, that there were many forward-looking projects on which the schools could embark if they had sufficient income. When the fund is able to determine the nature of these projects, its appeal to industry will be helped immeasurably. Corporation support will be enlisted more readily.

The fund's trustees are proud of the progress made to date in raising funds and putting the story of medical education before the people. They feel that if the fund and the Association can work together more closely, a liaison can be established between the medical schools and industry that will lead eventually to a full-fledged partnership for their mutual benefit.

AMERICAN MEDICAL EDUCATION FOUNDATION

HIRAM W. JONES, executive secretary: This program in philanthropic financing, in cooperation with the National Fund for Medical Education, has produced \$4,764,052 which has been distributed in the form of unrestricted grants to the 79 approved medical schools.

Unquestionably, the growing acceptance of the foundation's program by the medical profession can be traced largely to the continuing financial assistance given by the American Medical Association.

tion during the past three years. The latest grant of \$500,000 brings the total contribution of the AMA to \$1,500,000. Without these funds, the foundation would not have progressed to its present position for many more years. The foundation now stands on the threshold of future success, and with the continued support of the AMA the realistic goal of \$2 million can be attained. The officers and directors view the future with considerable optimism.

In addition to the \$500,000 AMA grant, the foundation has received contributions from individuals and organizations during the first 10 months of the current year which swelled the total income to \$948,773. The number of contributors during the first 10 months of 1953 exceeds the total number of contributors in 1952 by more than 100 per cent (15,151 as compared to 7,259 in 1952).

At the June meeting, the board of directors voted to transfer all accumulated funds of the foundation to the National Fund for Medical Education as of the close of business June 30, 1953. On that date \$1,044,602 was transferred. This represents the total foundation income for a 12-month period—June 30, 1952, to June 30, 1953. It also represents more than 50 per cent of the total funds distributed by the National Fund in its fourth round of grants to the nation's medical schools. The fund made grants totaling \$1,944,151 during July.

The officers and directors of the foundation feel that with the continued support of all segments of the medical profession, the income of the foundation can be increased to the desired sum of \$2 million annually in the immediate future. It is on this belief that the directors predicate their plans for the years ahead.

While the foundation goal of \$2 million will not be attained in 1953, we are hopeful that the income will exceed \$1 million by the end of December.

The leaders in the medical profession all over the United States are firm in their belief that sufficient funds are available through the medium of voluntary contributions to meet the continuing need for additional funds to augment the operating budgets of our medical schools. We therefore urge the Association of American Medical Colleges and its individual members to redouble their efforts, both in and outside the medical

profession, whenever the opportunity is afforded, to promote the foundation and the National Fund for Medical Education as a worthwhile source for charitable contributions.

ADVISORY BOARD FOR MEDICAL SPECIALTIES

B. R. KIRKLIN, secretary: During the fiscal year of February 1952 to February 1953, the allergists petitioned for an independent certifying board. This petition was denied. The Advisory Board for Medical Specialties, however, recommended that the effort be continued to make a satisfactory arrangement with the American Board of Internal Medicine and the American Board of Pediatrics to certify those interested in allergy.

There was a petition for an independent American Board of Legal Medicine. This petition also was denied.

The group interested in forming a Board of Aviation Medicine was combined with the American Board of Preventive Medicine and Public Health so that a certificate in this field now can be issued by the parent board.

NATIONAL SOCIETY FOR MEDICAL RESEARCH

RALPH ROHWEDER, executive secretary: Thirty-four organizations became members of the NSMR during the past year, raising the total to 236. In no other year since the first has the society had such an increase in membership.

Activities during 1953 included: publication of the pamphlet, "Your Pet and Medical Research;" inauguration of two newsletters, one distributed to NSMR members, the other to the public; arrangements for numerous articles in newspapers and magazines explaining the role and need for animals in medical research; production of a 35-minute movie; distribution of several thousand pieces of literature on request.

While the antivivisection cause has been substantially discredited in recent years, the movement still exists. Antivivisectionists are now rallying under the banner of the American Humane Association and the Animal Welfare Institute. Their leader is Dr. Robert Gesell, who does not advocate the abolition of animal research but contends that laboratories should breed and raise all dogs and cats needed for experiments.

Insofar as it is more moderate, the Gesell point of view is more effective than the old cry for the total abolition of animal studies. Furthermore, his position as a reputable scientist and teacher lends authority even to his most rash statements.

NATIONAL INTERN MATCHING PROGRAM (FORMERLY THE NATIONAL INTERASSOCIATION COMMITTEE ON INTERNSHIPS)

F. J. MULLIN, chairman: The operation of the matching program for intern placement worked reasonably smoothly and with a high degree of cooperation from both hospitals and students in 1953. The report of the second year of operation can be found in the November issue of *MEDICAL EDUCATION*, where details and statistics are presented and analyzed.

An important step was taken during the year. The old National Interassociation Committee on Internships turned over its function to the newly-organized independent agency representing the various elements in medicine most directly concerned with internships. In January 1953, the official functions of the NICI ceased and its assets and responsibilities were turned over to the newly-incorporated National Internship Matching Program. The American Hospital Association, American Protestant Hospital Association, Association of American Medical Colleges, Catholic Hospital Association, and Council on Medical Education and Hospitals of the American Medical Association became member organizations in the corporation, with liaison representatives from the U. S. Air Force, U. S. Army, U. S. Navy, Public Health Service and Veterans Administration. The newly-organized board of directors of the corporation includes representatives from the member organizations and from the medical students of the country. It is felt that this organization can continue to serve the best interests of the schools, the students, the hospitals and organized medicine in the important matter of facilitating intern placement. The organization is a voluntary effort in which basic policy matters are dependent upon and are referred to the constituent member or-

ganizations. Procedural matters for intern placement are carried out in the interest of achieving an orderly method of giving wide freedom to both hospitals and students in the selection process and maintaining fairness for the consideration of both groups.

Cooperation has been growing steadily and a wider understanding of the plan has led to a smoother functioning of the central office. All except 13 of the approved hospitals in the country are in the plan for this year, and about 6,500 students have agreed to participate. This represents an increase both in the number of hospitals and of students taking advantage of the opportunities of the matching program. There are still many problems, some of which will continue to exist as long as there is such a great disparity between the number of internships offered and the number of graduating seniors available. The essentials of the matching technique have been demonstrated over the past two years as feasible and helpful to both students and hospitals. It remains now to consolidate the full advantage to both students and hospitals, which can be made possible by the matching procedure through wider understanding and genuine cooperation with the aims and methods of NIMP.

The success of the program would not have been possible without the excellent and untiring efforts of John M. Stalnaker, director of operations, and his staff, who handled all the details of the actual matching with accuracy and dispatch. Dr. Edward Leveroos, director, division of hospitals and graduate education, Council on Medical Education and Hospitals, contributed greatly through preparation of the "Directory of Approved Hospitals Participating in the Matching Program for Intern Appointment," which was incorporated in the *Journal of the AMA* in the report of the Council on Medical Education and Hospitals in the Internship and Residency Number. Dr. Edwin L. Crosby, director, Joint Commission on Hospital Accreditation, has been most helpful in establishing contacts with the hospital associations and in explaining the program and securing the support of many hospitals.

Minutes of the Proceedings

EXPRESSIONS OF APPRECIATION

President Darley expressed the deep appreciation of the Association:

(a) To George Packer Berry and Julius Comroe for their effective planning of the Teaching Institute.

(b) To Arthur Adams and Alfred Washburn for their stimulating addresses.

(c) To Aura Severinghaus and John Deitrick for organizing the panel discussions on their published reports.

(d) To Joseph Kelly, Barbara Callahan, Max Elder, Elizabeth Griffin, Milton Murray and Raymond Torr for the splendid job of publicity they did for the Meeting.

INSTALLATION OF PRESIDENT

Stanley Dorst, upon being installed as president of the Association, made a short address pointing out several of the ways in which the Association presented evidence of "coming of age" under the guidance of such leaders as Joseph Hinsey, George Berry and Ward Darley.

1954 MEETING

President Dorst announced that the 65th Annual Meeting will be held at the French Lick Springs Hotel, French Lick, Ind., October 17-20, 1954.

1954 TEACHING INSTITUTE

George Packer Berry reported that the chairman of the Planning Committee for the 1954 Teaching Institute on Pathology, Microbiology, Immunology and Genetics was to be Douglas Sprunt of the University of Tennessee, and the co-chairman Robert Moore of Washington University, St. Louis.

COMMITTEES

Appointments to committees and representatives to related organizations were named for 1953-54 as follows:

(Chairmen listed first—Affiliation listed in *italics*.)

AUDIOVISUAL EDUCATION

Walter A. Bloedorn, *George Washington*

Thomas P. Almy, *Cornell*

Clarence de la Chapelle, *N. Y. University Post-Grad.*

William W. Frye, *Louisiana*

Henry M. Morfit, *Colorado*

Paul W. Shafer, *Kansas*

Theodore R. Van Dellen, *Northwestern*

BORDEN AWARD

Ashley Weech, *Cincinnati*

Willard M. Allen, *Washington Univ.*

Harry P. Smith, *Columbia*

Elmer H. Stotz, *Rochester*

William S. Tillett, *N. Y. University*

CONTINUATION EDUCATION

James E. McCormack, *Columbia*

George N. Aagaard, *Southwestern*

Robert Boggs, *N. Y. Univ. Post-Grad.*

Robert Howard, *Minnesota*

Samuel Proger, *Tufts*

Frank Roberts, *Tennessee*

John B. Truslow, *Medical Col. of Va.*

EDITORIAL BOARD

John Z. Bowers, *Utah*

William B. Bean, *Iowa*

Alan Chesney, *Johns Hopkins*

James W. Faulkner, *Boston*

Russell L. Holman, *Louisiana State*

Chauncey D. Leake, *Texas*

Henry Swan, *Colorado*

Dean F. Smiley, *secretary*

FINANCING MEDICAL EDUCATION

John B. Youmans, *Vanderbilt*

Walter A. Bloedorn, *George Washington*

Ward Darley, *Colorado*

Joseph C. Hinsey, *Cornell*

Vernon W. Lippard, *Yale*

Norman Topping, *Pennsylvania*

GRADUATE MEDICAL EDUCATION

Kendall Corbin, *Mayo Foundation*

John Deitrick, *Jefferson*

Aims C. McGuinness, *Penn. Graduate*

R. L. Pullen, *Missouri*

C. J. Smyth, *Colorado*

INTERNATIONAL RELATIONS IN MEDICAL EDUCATION

Francis Scott Smyth, *California (S.F.)*

E. Grey Dimond, *Kansas*

Frode Jensen, *N. Y. Univ. Post-Grad.*

Maxwell E. Lapham, *Tulane*

John McK. Mitchell, *Pennsylvania*

Elizabeth T. Lam, *Consultant, Com. on*

Internatl. Exch. of Persons

Harold H. Loucks, *Consultant, China Medical Board*

Myron Wegman, *Consultant, Pan-American Sanitary Bureau*

INTERNSHIPS AND RESIDENCIES

Currier McEwen, *New York University*

D. W. E. Baird, *(Idaho, Mont., Ore., Wash.), Oregon*

Robert Berson, *(Ky., N.C., S.C., Tenn.), Vanderbilt*

Harold Jeghers, *(Del., D.C., Md., Va., W.Va.), Georgetown*

Warren T. Brown (Okla., Texas), *Baylor*
Charles A. Doan (E. Ohio, W. Pa.),
Ohio State

Gordon E. Goodhart (Ariz., Calif., Nev.),
Southern Calif.

James E. McCormack (Conn., N.Y., part
of N. J.), *Columbia*

John McK. Mitchell (Part of N.J., E.
Pa.), *Pennsylvania*

Otto Mortensen (Minn., Wis.), *Wisconsin*
F. J. Mullin (Ill., Ind., Iowa), *Chicago*

Medical
Hayden C. Nicholson (Ark., La., Miss.),
Arkansas

James P. Tollman (Kan., Mo., Neb.,
N.D., S.D.), *Nebraska*

Richard W. Vilter (Mich., W. Ohio),
Cincinnati

Emil G. Holmstrom (Colo., N.M., Utah,
Wyo.), *Utah*

George A. Wolf Jr. (Maine, Mass., N.H.,
R.I., Vt.), *Vermont*

Eugene B. Ferris Jr. (Ala., Fla., Ga.),
Emory

LICENSURE PROBLEMS
Charles A. Doan, *Ohio State*

John P. Hubbard, *Pennsylvania*

J. Murray Kinsman, *Louisville*

Frank E. Whitacre, *Vanderbilt*

William R. Willard, *State Univ. of N. Y.*
(*Syracuse*)

Albert W. Wright, *Albany*

MEDICAL CARE PLANS
Dean A. Clark, *Harvard*

Frank R. Bradley, *Washington U. (St.*
Louis)

George Hayman, *Tufts*

Henry D. Mulholland, *Virginia*

John F. Sheehan, *Loyola*

Albert Snoke, *Yale*

Max Winthrop, *Utah*

PLANNING FOR NATIONAL EMERGENCY
Stanley Olson, *Baylor*

Mark Everett, *Oklahoma*

Thomas Forbes, *Yale*

Stockton Kimball, *Buffalo*

PROGRAM
Stanley E. Dorst, *Cincinnati*

Vernon W. Lippard, *Yale*

William Middleton, *Wisconsin*

Dean F. Smiley, *secretary*

PUBLIC INFORMATION
John L. Caughey, *Western Reserve*

Walter R. Berryhill, *North Carolina*

Joseph B. Kelly, *Johns Hopkins*

Milton Murray, *Medical Evangelists*

Ralph Rohweder, *Natl. Soc. for Med.*
Research

Raymond O. Torr, *Natl. Fund for Med.*
Education

John D. Van Nuys, *Indiana*

Harold C. Wiggers, *Albany*

SPECIAL STUDIES AND TEACHING INSTITUTES
George Packer Berry, *Harvard*

Philip Bard, *Johns Hopkins*

D. Bailey Calvin, *Texas*

Stanley E. Dorst, *Cincinnati*

Joseph C. Hinsey, *Cornell*

Thomas Hunter, *Virginia*

Carlyle Jacobsen, *State Univ. of N. Y.*

Vernon W. Lippard, *Yale*

Rolf Syvertsen, *Dartmouth*

W. Clarke Wescoe, *Kansas*

John M. Stalnaker, *secretary*

**VETERANS ADMINISTRATION—MEDICAL
SCHOOL RELATIONSHIPS**
R. Hugh Wood, *Emory*

Harold S. Diehl, *Minnesota*

A. C. Furstenberg, *Michigan*

Currier McEwen, *New York University*

Gordon H. Scott, *Wayne*

Richard W. Vilter, *Cincinnati*

Representatives to Related Organizations

ADVISORY BOARD FOR MEDICAL SPECIALTIES
Stanley E. Dorst, *Cincinnati*

William S. Middleton, *Wisconsin*

**ADVISORY BOARD OF AMERICAN FOUNDATION
OF OCCUPATIONAL HEALTH**
Gordon H. Scott, *Wayne*

**ADVISORY COUNCIL FOR THE NATIONAL FUND
FOR MEDICAL EDUCATION**
Walter A. Bloedorn, *George Washington*

Joseph C. Hinsey, *Cornell*

John B. Youmans, *Vanderbilt*

ADVISORY COUNCIL ON MEDICAL EDUCATION
Stanley E. Dorst, *Cincinnati*

Joseph C. Hinsey, *Cornell*

Vernon W. Lippard, *Yale*

AMERICAN COUNCIL ON EDUCATION
Ward Darley, *Colorado*

Joseph L. Johnson, *Howard*

Rev. Paul A. McNally, *Georgetown*

Edward J. Van Liere, *West Virginia*

William R. Willard, *State U. of N. Y.*
(*Syracuse*)

H. Boyd Wylie, *Maryland*

**COMMITTEE ON EVALUATION
OF FOREIGN CREDENTIALS**
Francis Scott Smyth, *California (S.F.)*

Harold A. Davenport, *Northwestern*

Minutes of the Proceedings

COMMITTEE ON SURVEY OF MEDICAL EDUCATION

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1953-1954

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Editorials and Comments

Individual Membership in the AAMC

THE 64TH ANNUAL MEETING of the Association of American Medical Colleges, October 26-28, 1953, marked the beginning of a new epoch for that Association. From its founding in 1876 until this last meeting, the interests of the Association have tended to center about the administrative problems of medical education while the teaching problems of the rank and file of medical educators have received only sporadic attention. This meeting centered around teaching problems.

The Teaching Institute on Physiology, Pharmacology and Biochemistry, held October 19-23 just preceding the Annual Meeting, demonstrated beyond any question of doubt that it is to medical teachers themselves that we must look in the future for basic improvements in medical education. Good administration can provide good organization and faculties, but only good teachers can provide high type and steadily improving instruction. The way in which that first group of medical teachers, selected one from a school, analyzed their problems in the five-day period provided and pointed the way to new levels of accomplishment, removed any doubt that might have existed as to the usefulness of the series of Teaching Institutes planned for the coming six years. Plans for the 1954 Institute are already being laid, with pathology, microbiology, immunology and genetics as the areas under discussion.

Discussion of these same teaching problems also was carried over into the larger group and the first day of the 64th Annual Meeting of the Association was devoted largely to that purpose. It is of some significance that on the morning of the first day of the Annual Meeting unanimous approval was given to a revision of the Association's Constitution and By-Laws which, among other changes, provided for individual membership for the first time.

Sponsorship of a series of Teaching Institutes, devoting the first day of the Annual Meeting to teaching problems, and making provision for individual memberships in the Association all stem from the realization of one important fact; i.e., if the purpose of the Association of American Medical Colleges—to advance medical education—is to be effectively accomplished, medical teachers must come into the Association and put their shoulders to the wheel along with the deans and other administrators.

Each medical educator in the country will receive in due course a personal invitation to assume individual membership in the Association. It is to be hoped that the great majority will respond with the feeling that is both an opportunity and an obligation.

Our Readers Write

What Is Pathology?

To the Editor:

In the August issue, Dr. McManus discusses "Pathology—Present and Future," and as in all "matters of opinion," the dissertation has several assailable features. What is "pathology" to the author?

Before taking it to task, assimilation of all the implications of its definition could temper an undue zeal. Like the meaning of its name, its territory is illimitable; no one individual can be its comprehender. For those who are still disposed to regard pathology simply as an austere and skilled autopsy discipline, this article could have been enlightening. However, respecting its place in the medical curriculum and specifically the pathology which was that of Cohnheim, MacCallum and Muir, I believe there is little need for stock-taking; the place is assured.

Dr. McManus says that the "emphasis to pathology should reflect the advantages of the subject to the future doctor." If pathology needs a salable emphasis, "fundamentals" should replace "advantages." It is not an advantage for students to see a gangrenous appendix or a cerebral necrosis; it is a necessity for their education. As time brings more therapeutic progress, there will be further examples of slight or remarkable differences in the organ-tissue changes wrought by disease. The morbid anatomist still will remain the principal comparer of the modified with the natural history of them all.

What of the modern contributions to this science of those trained in its

discipline? Dr. McManus will recall that we received the day-by-day story of inflammatory hepatic damage from them; new and more reasonable opinions upon fat and the liver cell; that it was a group of morbid anatomists who found an easy and a novel means of producing diabetes mellitus at will; that hypo-adenohypophyseal syndromes of intriguing pathogenesis were assisted in their elucidation by the anatomical researchers of another. And is it so very long since respiratory-tract cancer was cleared from its morass that credit for anatomical research has worn thin?

I have inferred, and if unjustly with apologies, that it was this, pathology's largest fraction, which held the source of most of Dr. McManus' discontent. I would wish to deny that it is a matter that pathology has "succumbed to the temptation of discussing those diseases about which we know most, and which are no longer prime problems to the physician." Those problems are fresh soil to our students, new bricks for the structure of knowledge, albeit they may resolve into commonplace and little-used information during the lifetime of those pupils. We would not say that our grade schools have succumbed to teaching our children those subjects which are no longer prime problems to parents.

Moreover, I wish I could command a little more of the optimism which Dr. McManus seems to radiate, that tuberculosis would never return and recreate the national problem of 40 years ago. My skepticism has a geographical root, and in addition is in-

tangibly a part of an uncertainty that security and plenty can replace war and desolation in our small world. Let us not hurry over good cause to dwell only on good effect. It was knowledge, science and the capacity to think which brought about the anticipation and interruption of a fateful pathogenesis. It is to these still that we owe the most; not yet to a "shot in the arm." If we take away knowledge and hence preparedness, will succeeding generations enjoy the comparative immunity of our own? No doubt people can "enter adult life today without conscious knowledge of tuberculosis except for the Christmas seal campaign," but this logic crumbles when the same true statement, omitting the goodwill canvass, is made about cancer. Finally, it would appear that Dr. McManus feels concern for the unexplained "precise mechanisms" of a recent and man-made sickness. Yet I cannot recall having read of their elucidation in the two preceding old and natural diseases.

It is clinically meritorious to someone, and very refreshing to be able to infer that inflammation of the parenchyma of the lung has so much disappeared from Dr. McManus' autopsy room that he considers it an unworthy or over-indulged subject in our present pathology teaching. Perhaps I should curb my incredulity that we have once and for all beaten the pathogenic cocci at their inflammatory attack upon this tissue. I have yet to find in my own experience as a teacher that the present role of tuberculosis and pneumonia fails to capture the interest of the student to the degree it succeeded previously. I would tremble to have cause to hope that I supplement any waning interest, or to imagine that I replace a lost one when teaching my students the inflammatory lesions of the common cold, sinusitis and tonsillitis. I know the direction in which that

particular interest goes, no matter how well "advantages" are expounded. Neither do I believe that there is a sound argument for the interchangeability and equality of the pathologic principles of inflammation which are involved. When we descend and adhere to the level of practicability, it is still disorganization of structure which concerns us most. How can we yet remotely replace its value to the surgeon, physician or their laboratory colleague?

Our students are to be taught primarily to diagnose and treat the sick. Wasn't it Osler who said that the first three essentials of therapy were diagnosis, diagnosis and diagnosis? If clinical diagnosis is attractive to the student, and the acquisition of competence with enjoyment of its true art is to become an ambition as well as a means of livelihood, then it is as certain now as it was to Osler that structural pathology is ahead on the list of essential studies.

Structure and function may assume identity, but only at the molecular level. To adopt the Angstrom unit and ignore the meter and the micron in our curriculum would serve few patients well. Functional pathology in its true sense is a molecular matter entirely. Very definitely it is not a more interesting substitute for the *anatomy* of disease; neither must it be confused with Moynihan's connotation of "pathology of the living." Cellular-chemical and physical techniques are its spearhead. I suggest that there are few who can lightly pass from a detailed command of anatomy to an identical familiarity with physiological chemistry, and I venture the same about structural and functional pathology; more especially where cyto- and histochemistry are concerned. The methods of this new science are for those trained as physiological and physical chemists. I receive an impression that Dr. McManus would like to see the dye

principles supplanted by specific chemical or functional ones. However old the techniques of the morbid anatomist may be, and though they may be supplemented, modified this way or that, they will essentially never be *replaced*. They have a definite purpose and they serve it well.

The science of Lison, Linderstrom-Lang, Gomori and Danielli has another and different function. Its tools demand painfully thorough chemical and physical interpretation of every act they perform. It should be clearly

realized, before we think so lightly of training our physicians in disordered cellular function, that these "implements" are not simply additional or better stain techniques. Although the technician can use them, only the understanding mind can interpret, devise and criticize. Neither must the science these things comprise be debased and confused by their indiscriminate use at the hands of the "partially-trained."

JOHN H. FODDEN, M.D.
University of South Dakota

NEWS DIGEST

Physiology Union

During the meeting of the 19th International Physiological Congress in Montreal, August 31-September 5, official delegates from physiological societies of 17 countries voted unanimously to form an international union of the physiological sciences.

A council of 11 members was elected. Its membership includes: E. D. Adrian, England; C. H. Best, Canada; K. M. Bykov, Russia; C. Heymans, Belgium; B. A. Houssay, Argentina; Y. Kuno, Japan; E. Lundsgaard, Denmark; A. Mayer, France; A. von Muralt, Switzerland; M. B. Visscher, United States, and H. H. Weber, Germany. The council elected Prof. C. H. Best as president and Prof. M. B. Visscher as secretary for three-year terms. Dr. Visscher is professor of physiology and head of the department at the University of Minnesota.

Medical Task Force

Several prominent medical educators have been named to a medical service task force by former President Herbert Hoover, chairman of the Commission on Organization of the Executive Branch of the Government. The task force will survey and make recommendations to improve efficiency and economy in government operations. Chauncey McCormick, a director of the International Harvester Company, heads the medical services group.

Among those serving on the task force are: Dr. Francis J. Braceland, dean, Loyola University School of Medicine; Dr. Michael DeBakey, professor of surgery and chairman of the department of surgery, Baylor University College of Medicine; Dr. Alan Gregg, vice president, Rockefeller Foundation; Dr. Paul R. Hawley, director, American College of Surgeons; Dr. Theodore G. Klumpp,

director, American Foundation of Tropical Medicine; Dr. Hugh R. Leavell, professor of public health practice, Harvard; Dr. Basil C. MacLean, director, Strong Memorial Hospital and professor of hospital administration, University of Rochester; Dr. James R. Miller, president, Northwestern University; Dr. Milton C. Winternitz, chairman, division of medical sciences, National Research Council; Dr. Otto W. Brandhorst, dean, Washington University School of Dentistry.

World Directory

The first "World Directory of Medical Schools" was published last month by the World Health Organization, incorporating information gathered in a two-year survey in 84 countries and territories. Some 500 medical schools are listed in the directory. Other information includes: the year the school was founded; conditions for admission; number of faculty members; enrollment by sex; degrees obtainable; fees. Data were collected by questionnaires mailed to the institutions.

The book may be purchased at the International Documents Service of the Columbia University Press, 2960 Broadway, New York.

Allergy Foundation

Announcement of the formation of the American Foundation for Allergic Diseases was made recently by Dr. Horace S. Baldwin of New York, president of the foundation. Headquarters are at 525 Lexington Ave., at 49th St., New York. Purpose of the organization is to stimulate and coordinate activity in the allergy field.

The organization was established after a fact-finding survey was undertaken by members of the executive committee of the American

Academy of Allergy and the board of regents of the American College of Allergists to study the problems and objectives to be gained from joint participation and to determine the precise areas of need for such a foundation.

Dr. Baldwin criticized the teaching of allergy in the medical schools, terming it haphazard and inadequate. "In some medical schools," he said, "allergy is neglected entirely. Due to the lack of hospital and clinic services, interns and residents have few opportunities for observation of patients. As a result there is a dearth of well-trained young specialists."

Radiation Journal

Academic Press, publishers, announce the completion of plans for a new journal, *Radiation Research*, the official organ of the Radiation Research Society. Dr. Titus C. Evans, College of Medicine, State University of Iowa, is the managing editor of the new periodical. First publication will be in February 1954. Publication offices are at 125 E. 23rd St., New York 10.

The journal will publish original articles dealing with all phases of radiation research to promote integ-

ration of physics, chemistry, biology and medical research as they are concerned with radiation.

College of Surgeons

The medical profession at large is invited to attend any of six sectional meetings of the American College of Surgeons, to be held between February 1 and May 19, 1954, in different parts of the country, Montreal, Quebec and London. Panels, symposiums, papers and medical motion pictures will be presented at each meeting. Dates and places of the meetings are as follows: Charlotte, N. C., February 1-3; Reno, Nev., February 25-26; Omaha, Neb., March 1-4; French Lick Springs, Ind., March 15-17; Montreal, Quebec, March 31-April 2; London, England, May 17-19.

Markle Director

Dr. Courtney Craig Smith, president of Swarthmore College, has been named a director of the John and Mary R. Markle Foundation. Dr. Smith helped select the 1953 foundation "scholars in medical science," 21 physicians who are faculty members of United States and Canadian medical schools. He is also American secretary of the Rhodes Scholarships.

College Briefs

Albany Medical College

Dr. CURTLAND CHESTER BROWN JR. has been appointed assistant dean of the college. In addition to administrative duties, Dr. Brown holds an instructorship in the department of medicine at the college and is a member of the staff of the Albany Hospital.

HAROLD HAMMOND has been appointed public relations director of the college, it has been announced by Dean HAROLD C. WIGGERS, who said, "The need for instituting a public relations department at the medical college, in order to make known the varied educational, scientific and research activities which the college supports has long been recognized."

University of Buffalo

Physicians and dentists from England, Canada and many parts of the United States will participate in symposiums December 11-12 in connection with dedication exercises for SAMUEL P. CAPEN Hall, the new building for the medical and dental school. The building was recently completed at a cost of \$4,500,000. Dr. Capen, chancellor emeritus of the university, will be guest of honor.

DR. SAMUEL FEINSTEIN has been named chief psychiatrist of the Chronic Disease Research Institute and medical director of therapy of the Information and Rehabilitation Center for Alcoholism.

A postgraduate course, The Office Laboratory, is being offered December 3 for physicians and their technicians.

Chicago Medical School

Recent grants for teaching and research total \$75,000. They include \$25,000 to Dr. ALDO A. LUISADA from the National Heart Institute, and to Dr. PHILIPPE SHUBICK a renewal of \$20,866 from the National Cancer Institute, \$10,000 from the Atomic Energy Commission and \$16,500 from the Procter and Gamble Company.

University of Cincinnati

Dr. LOUIS G. HERRMANN has been made an honorary fellow of the Academy of Surgery of France. He is one of 10 foreign members of the society. Dr. Herrmann, associate professor of surgery, has been associated with the school since 1932.

The Institute of Industrial Health will accept applications for a limited number of fellowships offered to qualified candidates for a graduate course of instruction in preparation for the practice of industrial medicine. The course consists of a two-year period of training, followed by one year of practice experience under supervision in industry. The degree of doctor of industrial medicine will be awarded. Stipends vary from \$2,100 to \$2,700 in the first year to \$2,400 to \$3,000 in the second year.

Columbia University

A grant of \$20,000 has been received from the China Medical Board Inc. for the department of nursing, a unit of the faculty of medicine. It will be used to finance a three-year study of the clinical field as a teaching environment for the preparation of professional nursing students.

Duke University

The 16th annual medical symposium was scheduled for December 1-2. This year's program is designed as a refresher course in the psychiatric aspects of diagnosis and treatment for the general practitioner and the nonpsychiatric specialist.

Dr. LENOX D. BAKER, orthopedic surgeon at the college and medical director of the North Carolina Cerebral Palsy Hospital, has been named president-elect of the American Academy for Cerebral Palsy. Dr. Baker is the second Duke doctor elected to this post in the academy's seven-year history. Dr. LESLIE B. HOHMAN, Duke neuropsychiatrist, served as president for 1951-52.

Georgetown University

Dr. HUGH H. HUSSEY has been appointed professor and head of the department of preventive medicine and public health. He also becomes a member of the executive faculty of the medical school. Dr. Hussey has been associated with the school since his graduation in 1934.

Cornell University

Dr. DAYTON J. EDWARDS has been named acting dean to succeed Dr. JOSEPH C. HINSEY, who was named director of the New York Hospital-Cornell Medical Center.

George Washington

A \$25,000 grant has been received from the National Heart Institute for use in teaching medical students the latest methods in diagnosing and treating heart diseases. The grant will be administered under the direction of Dr. JOHN M. EVANS, associate clinical professor of medicine, and Dr. ALBERT D. KISTIN, associate in medicine.

A \$12,000 grant for arthritis research has been awarded by the Eugene and Agnes Meyer Foundation. It will aid in equipping and operating an arthritis and rheumatic disease research laboratory at the University Hospital. Working with Dr. THOMAS MCP. BROWN, professor of medicine, in this research will be Dr. RUTH WICHELHAUSEN and Dr. HAROLD CLARK.

Hahnemann

Dr. MADISON B. BROWN has been named medical director of Hahnemann Hospital. He succeeds Dr. RAY-

MOND LEOPOLD, who has retired. Dr. Brown comes to Philadelphia from Roosevelt Hospital, New York.

Dr. C. GEORGE TDESCHI became professor and head of the division of pathology in September. He was formerly assistant professor of pathology at Boston University.

Recent grants include \$16,800 from Chemical Corporation Biological Laboratories for study under direction of Dr. BERNARD BRIODY, associate professor of bacteriology, and \$5,000 from the National Institutes of Health to be administered by Dr. CARL ALPER, division of biological chemistry.

Harvard

Dr. FRITZ LIPMANN, professor of biological chemistry, has become the sixth Nobel Prize winner on the faculty. He has devoted much of his career to studying the mechanisms of biosynthesis. Recently he has been investigating the mode of action of the thyroid hormone.

University of Illinois

Dr. ALBERT H. ANDREWS JR., clinical assistant professor of bronchoesophagology in the department of otolaryngology, has been elected president of the Otolaryngologic Alumni Association. Another faculty member, Dr. BURTON J. SOBOROFF, was reelected secretary-treasurer at the meeting. The association presented an award to Dr. FRANCIS L. LEDERER, named the outstanding teacher during the 1952-53 school year.

A total of 631 cases was handled during the 1952-53 fiscal year by the division of toxicology. Some 490 cases were handled for the coroner of Cook County. The university maintains a toxicological analytic service for law enforcing agencies, physicians and hospitals of the state.

Jefferson Medical College

The cardio-respiratory laboratory at the Barton Memorial Division of the hospital and college has been reactivated under the direction of Dr.

RICHARD CATHCART, who has been appointed assistant professor of medicine. Dr. Cathcart was in charge of a similar laboratory at St. Luke's Hospital, New York, and was an associate in medicine at Columbia University. He has two former residents from Jefferson working with him on a fellowship basis.

Kansas University

A new first-year curriculum was adopted this fall after a year of preliminary study. The primary objective of the new plan is to integrate the teaching in the preclinical subjects into a single one-year course covering the development, structure and function of the normal human being. There is no separation into departments. A counselor system has been established as part of the plan, with members of the faculty serving as counselors for groups of six or seven students during the year.

Dr. C. FREDERICK KITTLE, assistant professor of surgery, is spending several months studying in Europe, under the auspices of a Markle scholarship. He will visit various medical centers where cardiac and other thoracic surgery is being done.

Dr. CHARLES BRACKETT, assistant professor of surgery, has received a public health grant for a two-year project during which he will conduct a study on the cerebral blood vessels of monkeys.

Dr. A. T. STEEGMANN, chairman of the neurology section of the department of medicine, has received a three-year grant from the National Institutes of Health to be used for investigation of experimental cerebral embolism.

New president of the American Society of Physical Medicine and Rehabilitation is Dr. DONALD L. ROSE, professor of physical medicine and chairman of the department.

An intramural research grant program has been established at the medical center, according to Dr. H. I. FIRMINER, chairman of the research committee. The program is not designed to replace present departmental programs supported by develop-

mental funds, but is intended to supplement them. Its chief purpose is to encourage research by medical students, interns, residents and junior staff members by providing amounts up to \$500 to individuals for research projects.

Medical College of Virginia

Governor JOHN S. BATTLE broke ground for the new tuberculosis hospital, a joint project with the state health department, in September. The 1952 General Assembly appropriated \$1,875,000 for construction of the sub-basement, the basement and the first three floors of the new facility for Negro tuberculosis patients. Long-range plans call for the construction of an 11-story, \$6 million facility.

Dr. H. HUDNALL WARE JR., professor of obstetrics and gynecology, was honored by his former residents on the occasion of his 25th year of service. Dr. FRANK J. PAYNE reviewed the 25 years of progress of the obstetrical department under Dr. Ware. At this celebration it was announced that a scholarship and loan fund has been instituted in Dr. Ware's honor.

In recognition of his long service as president of the college from which the late Dr. STUART MCGUIRE retired in 1925, the Stuart McGuire lectureship was established in 1929. Invited speaker for the 25th annual lecture this year was Sir JAMES PATTERSON ROSS of London.

University of Minnesota

Continuation courses scheduled for the near future include: pediatrics for general physicians, January 7-9; neurology for general physicians and specialists, January 25-30; child psychiatry for general physicians, pediatricians and psychiatrists, February 1-5.

University of Missouri

Bids will be opened December 9 for construction of the teaching hospital for the four-year medical and surgical school. The building is to be

a seven-story structure and will contain 441 beds.

University of Mississippi

Dr. ANTON J. CARLSON, professor emeritus of the University of Chicago, is scheduled to address the Alcohol Studies Conference December 4-5. The meeting is sponsored by 30 major mid-south medical, business and social organizations. The purpose is to evaluate facts as they are presently known in this problem field. The public is invited to attend.

University of Nebraska

A research grant of \$5,000 has been presented by Cudahy Packing Company for the purpose of furthering specialized studies in endocrinology.

Northwestern University

Five members of the faculty have been awarded Wallace C. and Clara A. Abbott professorships for the academic year 1953-54. Recipients are: Dr. CARL A. DRAGSTEDT, professor of pharmacology and chairman of the department; Dr. FRED S. GRODINS, professor of physiology; Dr. WILLARD T. HILL, associate professor of pathology; Dr. E. ALBERT ZELLER, professor of biochemistry and ALLEN LEIN, associate professor of physiology.

A \$6,000 grant has been received from the United Cerebral Palsy Association of Chicago for research under HAROLD WESTLAKE in the speech development of children with cerebral palsy.

University of Oregon

Contracts were let in early October for construction of the \$280,000 administrative unit and outpatient clinic for the crippled children's division. Construction on the modernistic, L-shaped building is under way and should be completed in about a year.

A grant of \$14,000 has been received from the Public Health Service through the National Heart Institute for continuation of the cardiovascular training program at the medical school.

Dr. ROBERT A. ALDRICH, associate professor of pediatrics, aided in forming a new medical organization, the Western Society for Pediatrics Research, in San Francisco in late October. The group is being formed with the sanction of the National Society for Pediatrics Research. The annual western session will supplement the national meetings, which cannot always be attended by western pediatricians.

Twenty doctors from the northwest and British Columbia attended a postgraduate course in surgery at the medical school recently. Guest speakers were Dr. VICTOR RICHARDS, assistant professor of surgery, from Stanford, and Dr. H. THATCHER, Portland surgeon.

Dr. FREDERIC H. BENTLEY has been appointed clinical instructor in surgery. Formerly of England, he is a graduate of Manchester University and was professor of surgery at the University of Durham.

Four faculty members recently have received posts in national organizations. Dr. FRANK B. QUEEN, professor of pathology, was named president-elect of the American Society of Clinical Pathologists. Dr. KENNETH C. SWAN, professor and head of the department of ophthalmology, has become the first doctor from the Pacific Northwest to be appointed to the American Board of Ophthalmology. At a postgraduate session sponsored by the National Gastroenterological Society in Los Angeles in October, Dr. M. E. STEINBERG, clinical research associate in physiology, was elected to the national council of the organization. BERTHA B. HALLAM, head librarian, was elected to a three-year term on the board of directors of the National Medical Library Association.

University of Pennsylvania

The appointment of Dr. GEOFFREY W. RAKE to the dual position of research professor of microbiology in medicine in the school of medicine and the school of veterinary medicine.

To further studies with heart and liver enzymes, a grant of \$25,000 has been awarded by the National Science Foundation. The award goes to the department of physiological chemistry, of which Dr. D. WRIGHT WILSON is chairman, and will be applied to investigations of amino acid metabolism to be conducted by Dr. MINOR J. COON, associate professor, and his colleagues.

Dr. NORBERT J. ROBERTS has been named assistant professor of occupational medicine in the department of public health and preventive medicine.

University of South Dakota

A report reveals that more than \$105,000 worth of research at the medical school is being paid for with money received from federal and philanthropic agencies.

Sophomore students out-scored other second-year medical students in the United States taking an achievement test in the subject matter of cancer, according to results recently received. More than 75 per cent of all the medical schools in the nation took part in the test which was prepared and administered by the Cancer Research Institute of the University of California. Dean W. L. HARD credits the high scores to the fact that since students must transfer to some four-year school for their last two years, pathology is emphasized more in the sophomore year here, and also the fact that students attend the tumor clinic at Sacred Heart Hospital in Yankton each week as part of their class work.

An appointment to the Army Chemical Center in Maryland has been awarded to Dr. RUBERT S. ANDERSON. He resigned from his position as professor of physiology and pharmacology October 1.

State University of N.Y., Brooklyn

Dr. JEAN REDMAN OLIVER, professor of pathology, has been appointed the first Distinguished Service Professor of the State University of N. Y. Dr. Oliver has the longest record of serv-

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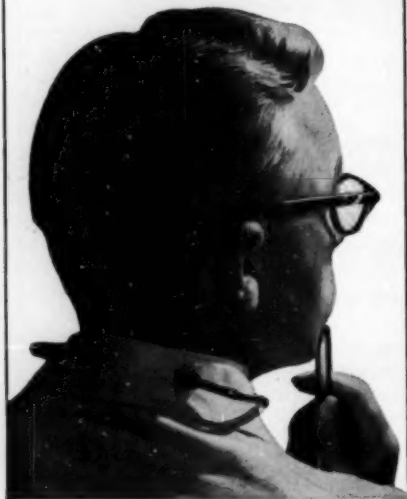
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ice to the medical school of any full professor on the faculty, coming to the college in 1929. He was honored at a reception on October 22, as was Dr. FRANK L. BABBOTT, president of the school from 1931 to 1941, when it was still known as the Long Island College of Medicine.

Dr. WILHELM S. FELDBERG, head of the division of physiology and pharmacology at the National Institutes of Health, Mill Hill, London, delivered the 18th Adam M. Miller Memorial Lecture recently. His subject was "The Physiology of the Autonomic Nervous System."

University of Texas, Galveston

Radio station KGBC of Galveston is featuring a weekly series of programs describing the teaching, research and service activities of the medical branch. The first eight programs will be devoted to general considerations and subsequent sessions will deal with specific research projects and teaching activities.

Dr. HENRY VIETS, chairman of the Council of Scientific Programs for the AMA, gave a special discussion on "William Smellie (1697-1763) and His Influence on Obstetrics and Medical Teaching" at the medical branch and also at the University of Oklahoma School of Medicine.

J. F. TOUGHS, professor of plastic surgery at the University of Glasgow, recently delivered some special lectures and conferences.

The annual James Greenwood Lecture in Neuro-Surgery was given November 16 by Sir GEOFFREY JEFFERSON, professor of neuro-surgery at the University of Manchester and president of the Manchester Literary and Philosophical Society. The subject of his lecture was "The Anatomy of the Trigeminal Nerve and Its Clinical Significance." Sir Geoffrey also gave a special seminar discussion on the opportunities of the search for the anatomical site of the soul.

University of Texas, Postgraduate School

Dr. MAVIS P. KELSEY has been named acting dean of the Post-Graduate School of Medicine at Houston.

He succeeds Dean ROSCOE L. PULLEN, who is serving as dean at the University of Missouri School of Medicine.

Tulane University

Dr. ERNEST CARROLL FAUST, who completed a quarter-century as professor of parasitology this year, has been honored as "the man who has had the greatest influence on the development of human parasitology in the United States in this generation." A portrait of Dr. Faust, sponsored by his associates and students, was presented to the school following a eulogy by Dr. HENRY F. MELENEY, research professor of medicine at Louisiana State University.

University of Utah

Dr. RICHARD H. FOLLIS, formerly associate professor of pathology at Johns Hopkins University School of Medicine, has been appointed professor and head of the department of pathology. Dr. Follis has carried on extensive research on the pathological aspects of nutrition and has made significant contributions to our knowledge of diseases of the bone. In addition to his responsibilities at the medical college, Dr. Follis will serve as pathologist to the Salt Lake General Hospital and as consultant in pathology to the two dean's committee Veterans Administration hospitals in Salt Lake City.

Washington University

Dr. CARL V. MOORE, professor of medicine, has been named dean, effective March 15. He succeeds Dr. ROBERT A. MOORE. The former dean will continue in his capacities of professor and chairman of the department of pathology until a successor is named for both posts. His association with the school of medicine will continue, however, through the academic year ending next June, when he will go to the University of Pittsburgh to become vice-chancellor in charge of the five schools of the health professions there.

Woman's Medical College

Renewals of the following grants have been announced: \$15,000 from the Public Health Service for undergraduate training in psychiatry; \$25,000 from the National Cancer Institute and the Public Health Service under the direction of Dr. CARMEN THOMAS; a cardiovascular teaching grant-in-aid of \$25,000 from the National Heart Institute.

The 1953 allocation of \$5,000 from the total gift of \$25,000 of the American Federation of Soroptimists has been earmarked for a radioisotope laboratory.

Dr. HEINRICH WIRZ of Basle, Switzerland, has come to the college under a fellowship from the Swiss Federal Research Foundation to work for six months with Dr. PHYLLIS A. BOTT, professor of physiological chemistry, on a study of certain aspects of kidney function using special ultramicro techniques.

Dr. CHARLES A. STEINER, clinical assistant professor in surgery, died September 4. He had been a member of the faculty since 1937.

Yale University

Dr. CHARLES LEE BUXTON, professor of clinical obstetrics and gynecology at Columbia University, has been appointed professor of obstetrics and gynecology and chairman of the department, effective April 1. He succeeds Dr. HERBERT THOMAS who is retiring as chairman of the department.

Dr. HERMAN BLASCHKO of Oxford University joined the department of pharmacology in September as visiting lecturer and research associate. He will continue studies initiated at Oxford on the concentration of epinephrine within cytoplasmic particles of the adrenal medulla.

Dr. WILHELM S. ALBRINK, assistant professor of pathology, has received a grant of \$6,000 from the American Cancer Society to investigate the relation between blood and the growth of cancer.

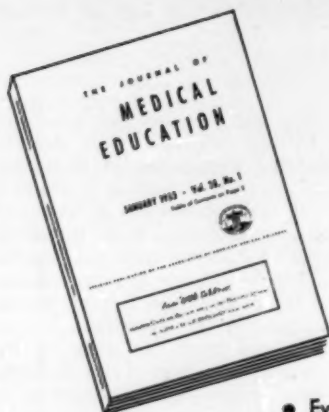


ARCHITECT'S MODEL of the new Edward S. Harkness Memorial Residence Hall for the Yale University School of Medicine. Plans are subject to the final approval of the Yale Corporation and construction is expected to start early next year. The building is the gift of the Commonwealth Fund in memory of Edward S. Harkness, Yale class of 1897. There will be accommodations for 300 medical students, including apartments for married students.

Dr. CHARLES C. WILSON, professor of education and public health, was selected by the American School Health Association as the 1953 recipient of the William A. Howe Honor

Award. The award, given in recognition of his contribution to school health, was presented on November 12 at the association's annual banquet in New York City.

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Audiovisual News

Experience With a Film Demonstrating Technique in the Physiology Laboratory

THE FIRST-YEAR physiology students at Harvard Medical School have repeatedly indicated that the mammalian experiments concerned with respiration, circulation and renal clearance are among the most stimulating and worthwhile exercises performed in the course. However, preliminary instruction and demonstration demanded considerable time of both the staff and the students. In addition, the number of animals needed was high in order to satisfy (a) demonstration requirements, and (b) loss of animals resulting from failure of student technique.

In an attempt to reduce the excessive expenditure of time and money, a 20-minute film was made three years ago demonstrating the basic techniques needed to set up such experiments. Since the study of physiological principles and not surgical technique was the purpose of the exercise, the procedures recommended were limited to those that enabled the students to prepare their animals properly in the shortest possible time. Thus the purpose of the film were: (a) to improve student instruction, (b) to reduce the instructors' time spent in preliminary demonstration, (c) to eliminate the need for, and the expense of, demonstration animals, (d) to decrease the number of animals lost by avoidable failure of student technique, and (e) to increase the amount of time available to students for observation of physiological processes. Although our experience with teaching by film has not been extensive, its effectiveness has been sufficient to warrant a brief note of report.

Before the film was produced and put to use, an instructor demonstrated the techniques of dissection, cannulation, etc. before each group of 30 to 35 students for the greater part of the first morning. With this large number of students only those in the front row could see the procedures, while the others soon became bored. Consequently, the avoidable loss of animals was high, because of inadequate preparation of the students, and the benefits of the exercise to the students were considerably below optimum.

The original purposes of the film also have been realized through economies in instructor time, student learning time and in numbers of animals required for laboratory exercises. A clearer and more detailed demonstration of procedure, with numerous close-ups, is provided in 20 minutes, where formerly much more time was required. Because the students have no difficulty in seeing the procedures, their interest is high and as operators they are able to set up their preparations in much less time and with far lower animal mortality. In addition, the film is available for review of technique on subsequent laboratory days. When repeated, it reinforces and recalls essential points.

While the film has served its purpose well within our department, other departments of physiology have given suggestions and criticisms which indicate that this film could not be generally distributed in its present form. Some instructors feel that all the details of surgical technique applicable to human beings also should be stressed even in animal experiments. Others report that in their laboratories they customarily

use other equipment, approaches and animals. Some have suggested quite properly that it would be unwise to attempt standardization of techniques because laboratory teaching might thereby become undesirably stereotyped.

In summary, the film produced for our department (by Sturgis-Grant Productions) is not likely to be generally accepted by other departments of physiology in its present state. However, it has proved to be of value in our department in realizing the purposes for which it was locally produced. It has observably improved student instruction. For the instructor it has lightened the burden of animal preparation and demonstration. For both student and instructor it has reduced the time of preliminary orientation to, and presentation of, basic laboratory procedures, and has therefore permitted more time for significant learning experiences. The cost of instruction time and student time saved has not been computed. However, the decrease in laboratory expenditures for cats alone will have paid for the original out-of-pocket expenses of the film (approximately \$400) at the end of the fourth year.

—A. CLIFFORD BARGER, assistant professor of physiology, and EUGENE M. LANDIS, professor of physiology and head of the department of physiology, Harvard Medical School.

Films at Clinical Congress

Films and television drew a total attendance of more than 18,000 viewers at the 1953 Clinical Congress of the American College of Surgeons. This was an unexpected increase over any previous year. A total of 70 films were shown at the Cine Clinics, film exhibitions and the film symposium, and an additional eight telecast programs were received from the Albert Merritt Billings Hospital of the University of Chicago School of Medicine.

As in the past, Cine Clinic films were presented by Davis & Geck, Inc. Recordings were made of the commentaries and these will be used to make sound versions of the films for

addition to the Davis & Geck surgical film library.

Summaries of Film Reviews

Schistosomiasis

27 min., sd., color, 16 mm., 1946

Scenes in schistosomiasis - endemic areas in the Middle and Far East precede the world distribution of the three human species of schistosomes. Polluted fresh water and unsanitary practices of fecal disposal are shown to maintain the disease. The role of snails in the propagation of the three species of human blood fluke is emphasized. The complete life cycle of *Schistosoma japonicum* in molluscan and human hosts is presented by means of cinemicrography, cinemacrography and animation. After showing exposure of civilian and military personnel to waters infested with schistosome cercariae, the clinical symptoms of acute schistosomiasis japonica are presented. Chronic schistosomiasis japonica is also presented, including scenes depicting severe intestinal and liver pathology. Techniques of diagnosing schistosome infections are shown: stool examinations using direct smear and concentration techniques, proctoscopic examination (with biopsy) and intradermal sensitivity test. Methods of therapy involving use of antimony compounds are presented. Prevention of infection is stressed, especially for military forces, who must be indoctrinated to ingest only purified water in infested areas, and to keep out of all fresh water unless wearing protective clothing.

The film is technically accurate and well organized in spite of the large amount of material presented. This film was constructed largely from unplanned footage acquired from various sources; therefore, there is a lack of visual continuity in most sequences. However, a logical presentation in chaptered format plus clear narration helps to bridge this deficiency. Good production work assists the transmission of content. The diagnostic value of blood films exhibiting eosinophilia is overstressed. Laboratory techniques and treatment of patients are liable to early obsolescence. Conversely, the life cycle of the blood flukes, the epidemiology of the diseases, and the clinical symptoms are of a more lasting nature.

This production will be of value both as an introduction to human schistosomiasis and as a summary of many of

the salient points regarding these diseases. The pace of the film may be somewhat too rapid for maximum student reception. Since the clinical data in chronic schistosomiasis are inadequately covered, these facts must be added by the instructor.—R.T. and M.S.F., with NYSMS Panel, 1950.

Audience: Medical and veterinary students of parasitology and public health, military and civilian physicians of endemic areas.

Production Data: **Producer:** U. S. Army (Signal Corps Photographic Center for Medical Department, U. S. Army); **Scientific Advisor:** Malcolm S. Ferguson, Ph.D., Major (Sn.C.), A.V.S.

Distribution: **Loan:** Apply Commanding General, Attention: Surgeon (of Army area concerned) or Armed Forces Institute of Pathology, 8th St. and Independence Ave., Washington 25, D.C., for applicants in the District of Columbia and foreign countries (giving Code No. PMF-5027).

Manson's Blood Fluke

16 min., sd., b&w., 16 mm., 1948

Eggs, hatching and motility of miracidia of *Schistosoma mansoni* precede observation of miracidial attack and penetration of Planorbis snails (*Australorbis glabratus*). Migration, development and multiplication of primary and secondary sporocysts into cercariae are shown in the snail. Cercariae released from the snail are seen attacking and penetrating the skin of the primary host. Developing schistosomules are seen as dissected from lungs and liver. Adult worms migrate to the mesenteric veins, copulate and lay eggs in the mucosal and submucosal veins. The normal routes by which eggs move through the mucosa to the fecal stream and to snail-inhabiting waters are contrasted with the fate of eggs drifting in the blood, trapped within the body, and creating grave pathology of intestines, liver and lungs.

The film has been competently constructed around the complexities of an helminth life cycle. The rich life cycle material is presented succinctly and thoroughly in live action, cinemicrography and animation. There are some omissions; for example, transit of the schistosomule to lung and to liver. Controversial aspects of the cycle, seen in animation only, represent a best common denominator of authoritative ideas concerning those phases. The selected clinical and pathological details may be useful in creating student motivation, yet they suffer from some dramatization, and are far more fragmentary and less integral than the life cycle mate-

rial. The film has been edited to a satisfactory pace for comprehension, and individual shots which are of poor cinematographic quality are submerged in its cohesive visual and narrational fabric.

The film condenses into a compact package a great amount of scientific data, encompassing material of real value for student or parasitologist alike. Utilized in integrated course presentations, it can be fitted readily into either basic or specialized teaching.—J.I.M. with MAVI Panel, 1951.

Audience: Students of medical parasitology and public health.

Production Data: **Sponsor and Producer:** The Communicable Disease Center, Public Health Service, with the aid of the School of Tropical Medicine, San Juan, Puerto Rico; **Scientific Advisor:** Jose Oliver-Gonzales, Ph.D., Ernest Carroll Faust, Ph.D., Willard H. Wright, Ph.D., Paul P. Weinstein, Ph.D. **Project Supervisor:** David S. Ruhe, M.D.; **Photography:** Juan E. Viguie, Richard S. Black; **Animation:** Hans Elias, Ph.D., Hemla Calpini.

Distribution: **Sale:** United World Films, Inc., 1445 Park Ave., New York 29, N. Y., \$22.50. **Loan:** apply to Medical Officer in Charge, Communicable Disease Center, 50 Seventh St., N.E., Atlanta, Ga. (Give Code No. 4-034).

Ascariasis (Die Spulwurmkrankheit)

11 min., sd., b & w., 16 mm., circa 1934

Ascaris eggs are seen as a prelude to the demonstration in animation of the larval migration from intestine to lungs. Developing larvae in the lungs are shown to be associated with swine "thumps." Migration from lungs to intestine is traced. Adult worms, a dissected female, oviposition and embryonation of eggs are seen successively. Transmission is outlined in swine, and in humans in Japan. Ascarids of several species are demonstrated in several hosts.

The film seeks to present the life cycle of *Ascaris lumbricoides*, with its associated pathology in swine and man. Only the biological material on the life cycle, which includes some good cinemicrography, is worth the viewing. The remainder of the film: life cycle animation, animal pathological material, etc., is fragmentary, often superfluous, frequently misleading, and inaccurate. The American reediting and renarration of the original 35 mm. German film was ineptly and carelessly done in almost every respect, from inappropriate music to poor and dissociated narration with mispronounced words, to poor print quality with amputation of the frame edges in the animation.

With the exception of the visual mate-

rial on the life cycle and the young pig with "thumps," the film is quite unsatisfactory in toto. Life cycle essentials however, will be conveyed to students if the instructor can tolerate the many irritations of the film's inadequacies, and if no better material is available, and if he chooses to use his own commentary with the sound turned off.—D.V.M. and D.S.R., with MAVI Panel, 1951.

Audience: Students of parasitology and biology.

Production Data: **Sponsor-Producer:** Scientific Laboratories of IG Farbenindustrie, Frankfurt, Germany. Modified in U.S.A. by U.S. Army, 1946.

Distribution: **Loan:** Apply to Armed Forces Institute of Pathology, 8th St. and Independence Ave., Washington 25, D.C., (Giving Code No. FMF 5124).

The Human Blood Fluke

33 min., color, sd., 16 mm., 1952

An introduction includes historical material concerning schistosomiasis in the Nile Valley, Africa and America; the role of snail species in transmission; education of populations, treatment and continuing research. The life cycle of *S. mansoni* is shown: adult egg-laying females in the mesenteric veins and egg hatching, miracidial attack upon the secondary host snails, intra-snail development of sporocysts and cercariae, cercarial attack through the primary host-skin and flatworm maturation in liver and mesenteric veins. Some experimental methods are shown for study of schistosomiasis: the experimental mammals used, the procedures for snail culture and the methods of infecting snails and harvesting cercariae for laboratory mouse infections. Chemotherapeutic methods for various anthelmintic agents are demonstrated with test animals.

The film is actually in four parts, of which the second deals with fundamental life cycle material and the latter two deal with experimental schistosomiasis. There is a certain emphasis on Nilodin 72, Miracil and Triostan, yet the presentation is cautious and restrained regarding the merits of currently available drugs. Productional skills are very competent; the color adds much interest; the cinemicrography is very good; and, although the clear narration binds together the sequences of an illustrated lecture film format, the film's overall workmanship is excellent.

As a report on current research methods and therapeutic drugs and as documentation of the details of Schistosoma

mansoni's complex and striking life cycle, the film is of high interest and merit. Because of its compartmentation, the life cycle material can, if desired, be shown independent of the sequences on experimental procedures. There is an abundant and effective film literature on schistosomiasis now available to medical teachers. This film is an excellent and useful addition, with many unique contributions.—D.S.R. with MAVI Panel, October 1953.

Audience: Students of medical parasitology and public health.

Production Data: **Sponsor:** Burroughs Wellcome Ltd., London; **Producer:** Wellcome Film Unit in collaboration with O. D. Standen and the Department of Helminthology, Wellcome Laboratories of Tropical Medicine, London; **Producer-Director:** Florence Anthony; **Assistant-Director-Photographer:** Douglas Fisher.

Distribution: **Loan:** Burroughs Wellcome, Ltd., Tuckahoe 7, N. Y.

Onchocerciasis, The Blinding Filariasis

17 min., sd., color, 16 mm., 1952

Blind victims of onchocerciasis in Central America dramatically precede sequences on the distribution of the disease, the nature of the terrain in endemic areas, and the causative agent of the disease—filarial worms removed from tumors on the skull. The arthropod vectors (*Simulium* species) are fed on human carriers of microfilariae, and developmental stages in the fly are shown. A section on epidemiology covers the species of blackflies involved, the habitats in which they breed, and studies on flight range and longevity. Clinical manifestations, especially about the eyes, are illustrated by views of several patients. Methods of diagnosis and treatment complete the film. This chapterized motion picture is a report of investigative and control work undertaken by a number of medical agencies, and contains much interesting and useful footage. Of special merit are the clinical scenes depicting tumors of the head and damage to the eyes. Certain sections; e.g., therapy, are likely to become obsolescent soon. The film suffers somewhat from dissociation between pictures and sound track, and from the too rapid pace of presentation.

The film is adequate for use in the teaching of medical parasitology. The exotic setting of the disease and the striking clinical cases will serve to stimulate student interest in this important if localized filarial disease. The entire film may be run but, since there are section headings, individual sections

can also be shown selectively if desired.—*D.V.M. and M.S.F. with MAVI Panel, 1952.*

Audience: Students of medical parasitology in schools of medicine and public health.

Production Data: **Producer:** Thomas A. Burch, M.D., National Institutes of Health, assisted by Herbert T. Dalmat and C. L. Gibson.

Distribution: **Loan:** Laboratory of Tropical Diseases, National Institute of Health, Bethesda 14, Md.

The Life Cycle of Diphylobothrium Latum
16 min., sd., b & w., 16 mm., 1950

This fundamental zoological teaching film covers all pertinent details of the life history of the cestode *Diphylobothrium latum*. Eggs, developing embryos, and coracidia are shown. The coracidium is eaten by a cope cod, within which the oncosphere becomes a proceroid. Inside cope cod-eating minnows and minnow-eating predator fishes the proceroid develops to a plerocercoid. In the primary fish-eating mammalian host the scolex produces its adult strobila of characteristic proglottids each discharging a stream of eggs.

The film follows the direct chronology of one of nature's more complex parasite life cycles. It is filmed in excellent cinemicrography, simple live action and diagrams, and edited to a compact biological message. With the exception of an abrupt ending and titles and animation of lesser quality than the film as a whole, the film will be difficult to improve upon, and constitutes a most important contribution to the visual teaching literature of biology and medicine.

The precision and directness of the film's message, its authenticity and casual richness of detail, rewarding even to the expert parasitologist, guarantee a strong impact upon both teacher and student. However, the concentrated character of the contents presupposes both familiarity with nomenclature and integrated utilization by the instructor.—*D.S.R., with MAVI Panels, 1951.*

Audience: Students of zoology and of parasitology.

Production Data: **Producer:** Communicable Disease Center, Public Health Service; **Scientific Supervision, Script and Direction:** Malcolm S. Ferguson, Ph.D.

Distribution: **Sale:** United World Films, Castle Division, 1445 Park Ave., New York 29, N. Y., \$22.53; and **Loan:** Apply Medical Director in Charge, Communicable Disease Center, Public Health Service, 50 Seventh St., N.E., Atlanta 5, Ga. (Giving Code No. 4-643).

Accompanying Materials: study guide.

Liver Fluke Disease in Sheep (Fascioliasis)
11 min., sd., b. & w., 16 mm., circa 1934

Pastoral views introduce the life cycle of *Fasciola hepatica* presented through cinemicrography and animation. Eggs, miracidia, rediae, sporocysts and cercariae are shown in live action. Encysted metacercariae are seen on vegetation to account for their ingestion by sheep. The pathological effects of and means of diagnosing fascioliasis are shown. Methods of treatment and control of the disease are presented.

This biological film, produced in silent form in Germany before World War II, covers the main aspects of the classical liver fluke life cycle. There are some inaccuracies; for example, the identification of the redia as a sporocyst in the narration. There is some good cinemicrography, but elsewhere in the film there is little visual continuity. The inept English narration reveals a general lack of familiarity with helminths on the part of the Americans who added a sound track to this production in 1948. While superficial, the film provides a straightforward presentation of the life cycle of *F. hepatica* and its effects on sheep.

An instructor aware of the film's shortcomings can utilize it to advantage if he provides the missing information and points out the errors in the narration. It would be preferable to run the film without its poor narration on the sound track and to supply better and more explanatory comments ad lib.—*D.S.R. with MAVI Panel, 1951.*

Audience: Students of parasitology and biology.

Production Data: **Sponsor:** Parasitology Institute of the I. G. Farbenindustrie, Hoechst am Main, Germany; **Camera:** Oskar Wagner, Ph.D.; **Revision and Narration in English:** U.S. Army, 1948.

Distribution: **Loan:** Apply Commanding General, Attention: Surgeon (of Army area concerned) or Armed Forces Institute of Pathology, 8th St. and Independence Ave., Washington 25, D. C., for applicants in the District of Columbia and foreign countries. (Giving Code No. PMF-5048).

Book Reviews

The Physician in Atomic Defense

Thad P. Sears, M.D., F.A.C.P., associate clinical professor of medicine, University of Colorado School of Medicine. The Year Book Publishers, Inc., 1953. 308 pp. with index. Illustrated. \$6.

This book is divided into three main sections: first, aspects of nuclear reaction and the atomic bomb; second, biological aspects of atomic warfare; and third, organization of the medical department for atomic defense. No new material is presented.

The book is a review of the current knowledge in the field written in such a way that the uninitiated may follow easily and become familiar with the ingredients of atomic warfare. The author has compromised exactness of physical laws in some instances to present the concepts in a way more easily understood. This becomes incongruous when he attempts to present highly theoretical and complicated physical concepts such as the theory of nuclear energy. Except for these defects, the section on nuclear theory is well written and can be used by physicians as a reference text with confidence.

In the first section, which contains the chapter on isotopes, the author has given examples of applications of isotopes. This would be of more value if he had thought to include some way by which the uninformed could differentiate between the technique of practical application at the present time and the techniques of limited and unproved application.

In the biologic section the reader should realize that what was accepted at the time of writing may not be true six months later, a fact which the author has not stressed adequately. Although the book is not intended to be a reference on research, the omission of the results found in the past few years on management of casualties, on whole blood replacement therapy and the like presents a deficiency, because the present management of radiation sickness cases is based almost entirely on the results of current investigation. This section is recommended as a reference for physicians who may be concerned with nuclear explosions because of its

completeness of coverage of subjects.

The section on the organization of the medical department for atomic defense is a masterpiece of organization and completeness carried in few enough pages so that any physician with a few hours reading can consider himself adequately prepared in the general structures and functions of such an organization. The section is not limited to civil defense description, but covers the general principles of medical supply, veterinary services, personnel training, etc., to name a few of the related and necessary aspects of the medical organization.

There is an excellent bibliography. The book may well serve not only as an introduction to newcomers, but also as a reference text to the expert in the field.

Allen F. Reid, *Southwestern*

Studies in Visual Optics

Joseph I. Pascal, B.S., M.A., O.D., M.D., licentiate in optometry and in medicine by the University of the State of New York; director of eye department, Stuyvesant Polyclinic; attending ophthalmologist, New York Polyclinic Medical School and Hospital, outpatient department; lecturer in ophthalmology, New York Polyclinic Medical School and Hospital. The C. V. Mosby Company, St. Louis, 1952. Illustrated. 800 pp. including index. \$12.50.

According to the preface, this book is intended for both undergraduate and postgraduate students, but the material is presented in a manner which may give undergraduates, with small previous knowledge of the subject, considerable trouble. "A thimbleful of trigonometry" is introduced very early, but many other aspects of lenses and lens systems are discussed in the early part of the book without being defined until much later. Retinoscopy is treated before the cardinal points and planes are discussed, without page references to help the student find the definitions he needs. Why the material should be presented backwards in this fashion is not clear.

But aside from this perhaps minor fault, the material is clearly presented and well explained. There are many ingenious aids to the memory, such as the "dam" formula for calculating refrac-

tive power. (As is frequently the case, some of the mnemonics are as hard to remember as the original material.)

Incidentally, the author raises the question as to the accepted definition of the "emmetropic" eye. He points out that the slightly myopic eye might be considered to be better suited for all-around visual needs than one in focus at infinity when relaxed.

The book is wide in scope, covering not only refraction but stereoscopic vergence, corrective exercises and many related topics, from both the theoretical and practical side. The author's style is pleasant and easily readable, making frequent use of the first person. There is an excellent bibliography.

David W. Northrup, *West Virginia*

Cybernetics

Transactions of the 9th conference, March 20-21, 1952, New York. Edited by **Heinz von Foerster**, department of electrical engineering, University of Illinois. Sponsored by the Josiah Macy Jr. Foundation, New York, 1953. Illustrated. 184 pp. \$4.

This book considers the following topics: the position of humor in human communication; the place of emotions in the feedback concept; homeostasis; discrimination and learning in octopus; reduction of the number of possible boolean functions; central excitation and inhibition; mechanical chess player; turbulence as random stimulation of sense organs; investigations on synaptic transmission; feedback mechanisms in cellular biology.

There are many valuable pages to stimulate the imagination. Scientific presentations are well-considered and carefully thought out. In the Macy conferences, discussion is at the heart of the presentations and elicits provocative trends of thought. Along with this there are many trivialities and the reader has to wade through it all to locate the solid substance.

Walter H. Seegers, *Wayne*

Essential Urology, 2nd edition

Fletcher H. Colby, M.D., associate clinical professor of genitourinary surgery, Harvard Medical School, Boston, Mass. The Williams & Wilkins Company, Baltimore, 1953. Illustrated. 650 pp. with index. \$8.

This is the second edition of an excellent text for students and residents in urology. The original material has been amplified to include the more recent contemporary work in this field, particularly with reference to cancer of the

prostate and genitourinary tuberculosis.

Dr. Colby's book is well organized and well illustrated, and continues the tradition of many years of outstanding writing which the author has restricted to medical journals in the past. It is to be recommended highly as a text for both undergraduate and advanced students of urology.

K. B. Conger, *Temple*

Peptic Ulcer

Lucian A. Smith, M.D., F.A.C.P., assistant professor of medicine, Mayo Foundation; **Andrew B. Rivers, M.D., F.A.C.P.**, late associate professor of medicine, Mayo Foundation. Appleton-Century-Crofts, Inc., New York, 1953. Illustrated. 576 pp. with index. \$12.50.

The authors are to be commended for the excellent way they have presented their subject. A single disease entity with its complications, diagnostic difficulties and treatment is described thoroughly and in an interesting manner. The illustrations of pain patterns accompanying the written text are well executed and certainly aid in the emphasis of the importance, but variability, of pain patterns in peptic ulcer and other abdominal disorders.

Even though the title includes the term "medical treatment," a thorough discussion of indications for surgical treatment and accepted surgical measures is included. Rational medical treatment as generally accepted is presented and the authors also present but do not emphasize the "psychic" component of the treatment of the patient with an ulcer.

This book is recommended to all physicians interested in peptic ulcer, especially the internist and the surgeon. It should serve as an excellent reference book for the medical student.

Robert W. Talley, *Arkansas*

Affective Disorders

Phyllis Greenacre, M.D. (editor). International Universities Press, Inc., New York, 1953. 212 pp. with index. \$3.

The five papers presented in this volume are part of the panel discussions on affective disorders held at the meetings of the American Psychoanalytic Association in 1950 and 1951. Some of the better papers have been included in this volume, including: Bebring's Mechanism of Depression, Jacobson's Contribution to the Metapsychology of Cyclothymic Depression, Zetzel's Depressive Position, Gero's Equivalent of Depres-

sion, Anorexia and Katan's Manic and Pleasure Principle.

The volume deals with the concept of depression which, carried to its logical extreme of self destruction, is incongruous with the concept of living. The contributions made by the various authors are concerned with special interests and experiences they have had with this phenomena. Various aspects of the nuclear concepts, defenses, depressive position and pleasure principle are discussed from different points of view.

The monograph was not intended to be comprehensive—yet it is rather complete in its presentation of the material. The book is a "must" for all psychotherapists.

Louis Lunsky, V.A. Center, L.A.

A Guide to Human Parasitology. 5th edition

D. B. Blacklock, C.M.G., M.D., D. P.H., D.T.M., formerly professor of tropical hygiene, Liverpool School of Tropical Medicine; T. Southwell, D. Sc. Ph.D. A.R.C. Sc., F.Z.S., F.R.S.E., formerly Walter Myers lecturer in parasitology, School of Tropical Medicine, The University, Liverpool. Revised by T. H. Davey, O.B.E., M.D., D.T.M., professor of tropical hygiene, Liverpool School of Tropical Medicine, The Williams & Wilkins Company, Baltimore, 1953. Illustrated. 228 pp. with index. \$5.50.

This book is written especially for the convenience of medical practitioners and for students enrolled in courses on tropical medicine. The emphasis is placed on simplicity and conciseness.

Important general considerations are given on parasitology and on the examination of material in the leading chapters. A comparatively large chapter is devoted to the group Spirochaetacea, which group the authors admit is now considered related to the bacteria. No section on medical entomology is included.

The major groups of human parasites—the protozoa, cestodes, termatodes and nematodes are taken up in an orderly manner, with adequate illustration and orientation given to each group. For the convenience of providing demonstration materials, forms other than human parasites; e.g. *Trypanosoma lewisi*, are given.

Each parasite is given the following considerations: geographical distribution, habitat, morphological characteristics, life history, pathogenicity, diagnosis and prevention. No information is given on treatment. In a few cases methods in the preparation of material for examination are provided. A few keys to general groups are presented.

Near the end of the book appear some poorly illustrated but useful diagrams depicting the life histories of helminths. These are followed by a very brief coverage of the subjects of immunity, congenital infection and post-mortem examination. As a brief and simple guide to human parasitology, the book serves its purpose quite well.

Edward D. Wagner,
Medical Evangelists

Physical Chemistry, 4th edition

David Ingersoll Hitchcock, Ph.D., associate professor of physiology, Yale University School of Medicine. Little, Brown and Company, Boston, 1953. With laboratory experiments. 266 pp. with index. \$5.

Although it is true that more and more physical chemistry is being introduced into our teaching of the sciences dealing with living phenomena, the chief stumbling block is the inadequacy of the average biological student's background in mathematics and his frustration at being confronted with such expressions

as $\frac{dx}{dt} = k(a-x)$. The first chapter of this brief textbook, which has as its express purpose the presentation of physical chemistry to students of biology and medicine, laudably attempts to supply a condensed account of the basic mathematical concepts which are necessary for the understanding of the rest of the text. In this reviewer's opinion such an introductory chapter could with profit be even more extended than Dr. Hitchcock has made it.

Another special feature is the list of problems at the end of each chapter, which if solved by the reader will show that he has grasped the significance of what he has been reading. Finally, directions are given for 14 laboratory experiments ranging from quantitative measurements of hemolysis of red blood cells and colorimetric determination of pH to measurement of oxidation-reduction potentials and membrane potentials.

Since in today's biological research the use of radioisotopes and the concept of biological turnover or decay is so prominent, a chapter on this topic would be a welcome addition, if this could be done without unduly increasing the size of the book, which has purposefully been kept within narrow bounds.

The text deals with the usual topics found in a book on physical chemistry, the gas laws, solubility, electrolytes, col-

loids, etc. It is clearly written and the applications of physico-chemical laws to biological material are neatly made, so that this book should provide a student with an excellent background for an understanding of how living matter behaves.

J. M. D. Olmsted, *U. of Calif., Berkeley*

Books and Pamphlets Received

(As space permits, those with the greatest interest to our readers will be reviewed)

Fundamentals of Ecology

Eugene P. Odum, University of Georgia. W. B. Saunders Company, Philadelphia, 1953. Illustrated. 384 pp. with index. \$6.50.

Doctors, People and Government

James Howard Means, M.D., emeritus professor of clinical medicine, Harvard; medical department, Massachusetts Institute of Technology. Little, Brown and Company, Boston, 1953. 206 pp. with index. \$3.50.

Female Sexuality

Marie Bonaparte. International Universities Press, Inc., New York, 1953. 225 pp. with index. \$4.50.

Peripheral Nerve Injuries, 2nd edition

Webb Haymaker, M.D., chief, neuropathology section, Armed Forces Institute of Pathology; Barnes Woodhall, M.D., professor of neurosurgery, Duke University School of Medicine. W. B. Saunders Company, Philadelphia, 1953. 272 illustrations. 333 pp. with index. \$7.

Maternal Dependency and Schizophrenia

Joseph Abrahams, M.D.; Edith Varon, M.A., M.S. International Universities Press, Inc., New York, 1953. 240 pp. \$4.

Shock and Circulatory Homeostasis

Transactions of the second conference, October 19-21, 1952. Harold D. Green, M.D., editor, professor of physiology and pharmacology, Bowman-Gray. The Josiah Macy Jr. Foundation, New York, 1953. Illustrated. 275 pp. with index. \$3.75.

A Primer of Cardiology, 2nd edition

George E. Burch, M.D., F.A.C.P., Henderson professor of medicine, Tulane. Lea & Febiger, Philadelphia, 1953. 329 pp. with index. Illustrated. \$5.50.

Surgery of the Biliary Tract, Pancreas & Spleen

Charles B. Puestow, M.D., Ph.D. (Surg.), clinical professor of surgery, College of Medicine and Graduate College, University of Illinois. The Year Book Publishers Inc., Chicago, 1953. Illustrated. 370 pp. with index. \$9.

Human Embryology, 2nd edition

Bradley M. Patten, professor of anatomy, University of Michigan. The Blakiston Company Inc., New York, 1953. Illustrated. 798 pp. with index. \$12.

Clinical Management of Behavior Disorders in Children

Harry Bakwin, M.D., professor of clinical pediatrics, New York University; Ruth Morris Bakwin, M.D., associate professor of clinical pediatrics, New York University. W. B. Saunders Company, Philadelphia, 1953. Illustrated. 495 pp. with index. \$10.

Spatial Vectorcardiography

George E. Burch, M.D., F.A.C.P., Henderson professor of medicine, Tulane; J. A. Abildskov, M.D., instructor in medicine, Tulane; James A. Cronvich, M.S., professor of electrical engineering, Tulane University College of Engineering. Lea & Febiger, Philadelphia, 1953. 121 illustrations. 173 pp. \$5.

The Symptoms and Treatment of Acute Poisoning

G. H. W. Lucas, professor of pharmacology, University of Toronto. The Macmillan Company, New York, 1953. 308 pp. with index. \$4.

Modern Clinical Psychiatry, 4th edition

Arthur P. Noyes, M.D., associate professor of psychiatry, Graduate School of Medicine, University of Pennsylvania. W. B. Saunders Company, Philadelphia, 1953. 609 pp. with index. \$7.

A Speculation in Reality

Irving F. Laucks. Philosophical Library, New York, 1953. 164 pp. with index. \$3.75.

Abstracts and Excerpts

Kubie, Lawrence S., **Some Unsolved Problems of the Scientific Career**, "American Scientist," Vol 41, No. 4:596-613, October 1953.

Because of the great importance of scientific research, it would seem sensible to study the men engaged in this profession in an attempt to discover: (a) the special stresses, both economic and psychological, which occur in the life of the young scientist; (b) the variety of conscious and unconscious forces that determines a young man's choice of scientific research as a career; (c) the interplay of conscious and unconscious forces in his subsequent emotional and scientific maturation; (d) how the special stresses in later life react upon earlier emotional stresses; (e) how unconscious stresses influence the young investigator's general approach to scientific research and controversy; (f) how the unconscious symbolic significance of particular scientific problems and theories can distort logic and judgment.

Such a study might be started by undertaking psychologic exploration of a random sampling of: (1) promising young men who hope to go into scientific research, and (2) men who have spent many years in research, including those who have been talented but unproductive, those who have been creative but unsuccessful and those who have been successful.

Wescoe, W. Clarke, **Responsibilities of the Medical School to the State It Serves**, "Missouri Medicine," Vol. 50, No. 11:841-844, November 1953.

Each medical school has an obligation to the state or region in which it exists, no matter what the source of operating funds. Service is an inherent part of medical education. The problem is to preserve a balance between pure service and education. The school must define the needs of its state with respect to medicine, must formulate programs to meet these needs and implement these programs as wisely as possible.

A few years ago Kansas had two grave problems—it was losing doctors at about the same rate it was gaining population, and its mental hospitals were inadequate. The medical school spear-

headed a rural health program to help with the first problem and in the second case aided a program that was already achieving success under the direction of a board of social welfare composed of laymen.

The truly progressive medical school has an obligation to reassess its curriculum constantly. Each state has a great need for family physicians, therefore the school must keep that in mind when planning its curriculum.

The medical school must provide information to the general public and make its services known. Its faculty should speak to lay groups and medical societies. The school, above all, provides leadership.

Anderson, Donald G., **World Problems in Medical Education**, "World Medical Association Bulletin," Vol. 5, No. 4:229, October 1953.

The most important problem in medical education, from a world point of view, is to develop a common basic standard of medical education. This does not imply a single rigid pattern. Issues which can be considered basic to all schools include: the development of individualized teaching; the size of the student body in relation to the number of teachers; methods of selecting students; standards of preprofessional education; ethics; principles of the scientific method; increasing development of preventive medicine and the encouragement of students to enter general practice or the specialties, with the idea of maintaining a balance. Since development of standards must be done on a voluntary basis, it may take 25 or 30 years for all schools to conform to acceptable standards, with the assistance of the World Medical Association.

Ryans, David G., **The Investigation of Teacher Characteristics**, "The Educational Record," Vol. 34, No. 4:371-396, October 1953.

Since 1948 the staff of the Teacher Characteristics Study, sponsored by the American Council on Education and supported by the Grant Foundation, has engaged in research in an attempt to understand the nature and organization of the personal and social characteristics

of teachers. Two principal objectives have been: (1) the identification and analysis of patterns of teacher behavior, and (2) the development of psychometric instruments for the prediction of teacher behavior.

To date, no definite results have been obtained but some basically important information is being provided for the development of courses and curricula and the analysis of teacher behavior.

Bibliography

- Appel, Kenneth E., **Putting the Family Back in Medical Education**, "The New England Journal of Medicine," Vol. 249, No. 10:397-399, September 3, 1953.
- Court, S.D.M., **Some Impressions and Reflections on Medical Education in England and the United States**, "The Newcastle Medical Journal," Vol. XXIV, No. 6:164-165, July 1953.
- Miller, Helen Adele, **U.S. Government Programs of International Exchange: 1952**, "The Educational Record," Vol. 34, No. 4:313-326, October 1953.
- Pullen, Roscoe L., **Progressive Medical Education**, "Missouri Medicine," Vol. 50, No. 10:783-784, October 1953.
- A Review of General Practice by the General Practice Review Committee of the B.M.A.**, "British Medical Journal," (supplement), September 26, 1953:103-155.
- Taylor, A.N., **Preceptorship Training**, "Commentary," Vol. 1, No. 1:5, September 1953.
- Training or Work?** (ed.), "California Medicine," Vol. 79, No. 4:323-324, October 1953.
- Waas, Glenn, **Graduate School Language Requirements and Undergraduate Counseling**, "The Modern Language Journal," Vol. XXXVII, No. 5:219-225, May 1953.
- Rappleye, Willard C., **The Struggle to Maintain Standards**, "The Pharos of Alpha Omega Alpha," Vol. 17, No. 1:3-7, November 1953.
- Fine, Benjamin, **Our Medical Schools Today**, "Medical Economics," Vol. 31, No. 1:112-117, October 1953.
- Lewis, R. Cragin, **How To Get Better Doctors**, "Medical Economics," Vol. 31, No. 1:227-231, October 1953.
- Hall, B. H., **Early Development of the Psychiatrist**, "The Journal of the American Medical Association," Vol. 153, No. 7:615-620, October 17, 1953.
- Curran, J. A., **Professional Training**, "The Military Surgeon," Vol. 113, No. 4:263-269, October 1953.
- Fleege, Urban H., **Current Status of Accreditation with Special Reference to Teacher Education**, "The Educational Record," Vol. 34, No. 4:305-312, October 1953.

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• **PSYCHIATRIST:** Desired for full-time position as university psychiatrist for student health services and as consultant to outpatient mental hygiene clinic and marriage counseling clinic. Prefer diplomate of American Board of Psychiatry or eligible, with training and experience in dynamic psychotherapy. Some teaching required. Salary open. Address: V-10.

• **BOARD APPROVED TWO-YEAR RESIDENCY** available in thoracic surgery. University center; East. Requirements: three years approved training in general surgery. Immediate opening. Reply to: Address: V-12.

• **PROFESSOR OF PREVENTIVE MEDICINE.** Applications are invited for the position of professor of preventive medicine in the faculty of medicine, University of Ottawa, Canada. Requirements: M.D. with specialization in preventive medicine and preferably with teaching experience. Write full details to: V-13 Journal of MEDICAL EDUCATION.

• **THE UNIVERSITY OF ROCHESTER SCHOOL OF MEDICINE AND DENTISTRY** has appointed a committee to make recommendations for the appointment of a **PROFESSOR OF SURGERY** and **CHAIRMAN OF THE DEPARTMENT OF SURGERY**. The committee invites nominations and applications. Communications should be addressed to the dean, University of Rochester School of Medicine and Dentistry, Rochester 20, N. Y.

• **THE UNIVERSITY OF BRITISH COLUMBIA FACULTY OF MEDICINE** requires a **TEACHING FELLOW IN PSYCHIATRY** for one year or 18 months beginning January 1, 1954. Stipend, \$2,400 per annum. Duties will be performed in psychiatric unit of Vancouver General Hospital. Address inquiries to: Dr. George A. Davidson, Dept. of Psychiatry, Faculty of Medicine, University of British Columbia, Vancouver, Can.

• **BIOCHEMIST-NUTRITIONIST:** Teaching and research position in department of biochemistry, southern university. Salary and rank are open and depend upon educational background, teaching experience and research activities. Reply should include personal history, complete bibliography and photo. Address: V-14.

Personnel Available

• **BIOCHEMIST:** Ph.D., age 26, married. Four years' research on the biochemistry of human arterial smooth muscle, contraction and tonus mechanisms in relation to hypertension and arteriosclerosis. Desires opportunity to continue biochemical research on the arterial wall under cardiovascular investigator, with

possibility of study toward M.D. degree. Available October 1953 or June 1954. Address: A-41.

• **BIOCHEMIST OR PHYSIOLOGIST:** Ph.D., age 31. Active researcher and teacher at university medical school for five years. Fine scholastic record, public health senior research fellow, many publications. Interested in position allowing work for M.D. degree. Address: A-43.

• **ANATOMIST:** 32, married, children. National Cancer Institute fellow (1 year); experience in all branches of anatomy. Publications on request. Interested in research as well as teaching. Excellent references. Available after July 1, 1953. Address: A-44.

• **BIOCHEMIST-PHYSIOLOGIST:** Man, 30, married, Ph.D. Now assistant professor at medical college. Enthusiastic teacher with several years of research experience. Desires academic position at medical, dental or pharmacy school or liberal arts college where good teaching is considered important. Interested in graduate training program and fundamental research, if available. Administrative duties are very welcome. Publications. Location immaterial. Rank and salary open. Address: A-47.

• **TEACHING FELLOWSHIP — OTOLARYNGOLOGY:** special interest in problems of tumors in region of head and neck, particularly those related to cancer of mouth, larynx and pharynx. Man, single, 37, M.D. (surgeon) University of Cordoba. Head of clinic and assistant chief, department of otolaryngology, Hospital Espanol, Cordoba, 3 years; intern and resident, U.S., 1949-1951. Member scientific societies. Excellent references. Argentine citizen; good command of English. Address: A-49.

• **TEACHING FELLOWSHIP — GYNECOLOGY:** Man, 41, married, M.D., University of Cordoba. Supervision of gynecological patients 1930 to present, 2 years teaching in medical school and hospital. Member scientific societies. Publications. Argentine citizen; good command of English. Address: A-50.

• **YOUNG SURGEON** — Certified general and thoracic boards. University trained. Major in-



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Information for these columns should reach the Journal office, 185 N. Wabash Ave., Chicago 1, not later than the 10th of the month preceding publication.

terest thoracic and cardiac surgery. Experienced in applied cardio-pulmonary physiology. Some publications. References. Wishes full-time teaching appointment. Address: A-51.

• **PHARMACOLOGIST—ADMINISTRATOR:** Man, 31 married. Ph. D. Desires academic position, preferably with teaching duties. Four years industrial experience, and five years academic experience. Interest in toxicology and neuropharmacology, and graduate student training. Highest references, publications. Address: A-52.

• **PARASITOLOGIST:** D.Sc., man. Internationally known—widely travelled. Guggenheim fellow. Effective teacher on undergraduate level in zoology, in medical school and post-graduate clinical level. Numerous research papers and monographs in taxonomy of parasites, surveys, chemotherapy and toxicology. Gets on well with colleagues. Desires position in fall. Salary secondary to time for research. Liberal arts college will be considered. Address: A-54.

• **ADMINISTRATOR-EDUCATOR:** Man, 38; B.S., M.A., Ed.D; fellow, national science-medical societies; 17 years experience administrator national public health-medical organizations; university professional school teaching; 5 years intensive experience medical school organization management including affiliation, curriculum, fellowship and research programs, fund raising, physical development, purchasing, student selection; author six books, numerous papers. Seeks top-level administrative post medical school, foundation, east. Address: A-55.

• Position desired in medical school or university hospital by woman with M.S. in bacteriology. Three years experience teaching bacteriology, serology, parasitology and clinical microscopy to medical students and medical laboratory technicians. Excellent experience in writing and statistical interpretations in medical fields. Formerly in charge of university hospital bacteriology and serology department. Address: A-56.

• **INTERNIST:** 35. Certified. Desires full-time academic appointment with research. Currently assistant professor of medicine, director of basic research laboratory (biochemistry and physiology), supported by several grant foundations. Active in clinical teaching. Research and clinical experience at several leading institutions, including fellowship abroad. Priority IV. More than 40 publications. Address: A-57.

• **BIOCHEMIST:** Ph.D., 1953. M.S. Analytical chemistry. Desires academic and/or research position. Strong medical science background. Four years diversified teaching experience. Research experience in enzymes, trace metals and histochemistry. Age 32, family, veteran.

Sigma Xi, publications. East preferred. Address: A-59.

• A position in PREVENTIVE MEDICINE and PUBLIC HEALTH with administrative responsibility desired. Age 45, married; two children. 13 years extensive experience in administrative medicine, including the teaching of public health and preventive medicine. Broad background in multiple areas of medical and hospital economics. References. Fellow, American Public Health Association; diplomate, American Board of Preventive Medicine and Public Health. Address: A-61.

• **CHIEF X-RAY TECHNICIAN:** White, male, 45 years. 20 years experience, 12 as chief of busy 20-employee department. Capable of assuming complete supervisory responsibility, teaching and general administration duties. Location desired outside New York area. Address: A-62.

• **PATHOLOGIST:** M.D. under 40, diplomate. Professor and chairman of department of pathology and chief of diagnostic services; distinguished academic career, varied experience, numerous publications; seeks post as full or associate professor with suitable responsibility and hospital laboratory directorship in progressive medical school. Available June 1954. Own department can be inspected by interested body. Reasons for change: overwork and poor financial return. Address: A-64.

• **BIOCHEMIST:** Ph.D., 1952. Plasma protein fractionation, enzymes, blood coagulation, fibrinogen. Six publications on these topics. Electrophoresis. Five years laboratory teaching experience in medical and dental biochemistry food analysis, blood chemistry. Seeking teaching position with or without facilities for research. Address: A-65.

• Active researcher: Member of many scientific organizations. Interest in fields of ENDOCRINE and CARDIOVASCULAR RESEARCH. Ten years research and six years teaching experience. Present position as associate professor in large medical school. Desires change of location. Numerous publications. Excellent recommendations. Minimum salary stipulated. Address: A-66.

• **BACTERIOLOGIST:** Ph.D. Man. Age 27, married. Veteran. Present rank assistant professor. Would like teaching-research position in medical bacteriology, immunology or bacterial physiology. Teaching experience in liberal arts and medical schools. Prefer location in the west or northwest. Publications. References. Available September 1. Address: A-67.

• **BIOCHEMIST:** Ph.D. Age 31. Married. B.S. chemistry, biology. Ph.D. biochemistry; minors: chemistry and microbiology. Publications. Three years graduate teaching assistant, two years post doctoral studies, biochemistry and nutrition. Research interests: vitamin and amino acid biochemistry. Desires teaching position in biochemistry with research oppor-

tunity or hospital laboratories with professional, financial advancement. Address: A-68.

• **BIOCHEMIST:** Ph.D. 36. Associate professor with eight years teaching experience in medical biochemistry and three years teaching in immunology. Active research worker with approximately 30 publications in immunology, protein chemistry, enzymology, nutrition, clinical chemistry and analytical chemistry. Experience in teaching postgraduate medical biochemistry. Desires teaching and research position in a medical school or a full-time research appointment at a hospital or other medical research institution. Available at any time in the fall or winter of 1953. Address: A-69.

• **PEDIATRICIAN:** Board eligible; single woman; 42. Protestant. A.B., M.S. and M.D. Extensive graduate training in hematology morphology and 2 years experience as marrow and blood morphologist in pediatric hematology. Teaching experience: university level-gross anatomy, 2 years; college level-health education, 3 years; high school level-biological science, 5 years. Medical practice; large university students' health service, 3 years; private practice, 1 year. 8 publications. Address: A-70.

• **PHYSIOLOGIST:** Male, married. Teaching and research experience. Numerous publications. Ph. D. Background in organic chemistry and biochemistry. Research interests in mammalian and human physiology. Interested in full-time academic position. Address: A-71.

• **PHARMACOLOGIST:** Man, 32. Family. B. S., pharmacy. M.S., Ph.D. pharmacology. Minors: biochemistry and physiology. Two years graduate assistant. One year E.I. Lilly fellow; for the second year National Institutes of Health predoctoral research fellow. Publications and research. Desires position with a medical school department of pharmacology. Time and financial aspects are of secondary importance. Interested particularly in a position that will provide a sound basis for future academic advancement. Available after June 1954. Address: A-72.

• **UROLOGIST and SURGEON:** Age 49, active research worker. Experienced teacher in physiology and urology desires teaching in both subjects and research position in medical school. 42 published papers and lectures and one book. Position should be permanent. East or West coast preferred. Available immediately. Address: A-73.

• **ANATOMIST:** Man. South American. Age 44, M.D. University of Paris. Languages: Spanish, French and English. Teaching experience in gross anatomy, 15 years. Head and professor of the department of anatomy since 1951. Publications. Educational awards. Seeking full-time position as professor or assistant professor of gross anatomy in any school but prefers a New England or West Coast medical school. Available: March 1, 1954. Address: A-74.

• **MEDICAL and GENERAL ENTOMOLOGIST:** Ph.D., 1938. Man, age 42. Family. Associate professor in leading medical school with 18 years teaching and laboratory research experience, including fundamental and disease-transmission studies. Publications. Organizations. Editing. Desires change of location with permanent academic (undergraduate or graduate level). Research or other suitable position. Address: A-76.

• **RESEARCHER:** Man. Age 35. Family. Research associate and assistant. Interested in university offering research opportunity connected with teaching pharmacology. Experi-

ence largely in research with some teaching. Available for position on short notice. Publications and references. Address: A-77.

• **SURGEON:** 35. Seven years surgical training and teaching at the University of Goettingen, Germany. Experience in research and publications both in Europe and USA. Anticipating completion of American Board of Surgery requirements in June 1954. Wishes to resume academic career. Special interest in surgical physiology. Address: A-78.

• **PHYSIOLOGIST or BIO-PHYSICIST:** Man, 31, married. M.S., Ph.D. Desires academic position with freedom of research, or research position in field of interest. Active researcher, many publications, special experience in radioactive isotope methods, bone mineral turnover, circulatory dynamics, burn-shock. One and one-half years predoctoral teaching experience. Broad education in biology and various fields of physiology. Address: A-79.

• **BIOCHEMIST:** Ph.D. 36. Associate professor in large medical college with distinguished record in research on peptides, amino acids, hormones and antibiotics. Has taught biochemistry in two medical colleges; elementary and advanced courses in university. Desires position in a medical college, preferably with opportunity to direct graduate students in biochemistry, in research institute or in university. Address: A-80.

• **M.D., Dr. P. H.** Interested in teaching in medical or public health school. Fifteen years' experience includes general public health administration, industrial hygiene, epidemiology, immunology and basic and applied research; also some undergraduate and postgraduate teaching. Publications. Excellent references. Available on short notice. Address: A-81.

• **PHYSIOLOGIST:** Teaching position in a medical school starting in the fall of 1954. Has had five years in pediatrics, will have had two years in neurophysiological research. Age 28. Address: Anton N. Lethin Jr., dept. of physiology, Yale University School of Medicine, 333 Cedar St., New Haven 11, Conn.

• **Permanent position** desired with opportunity for significant research with or without teaching. Ph.D. and national research council fellow with experience in iron uptake and phosphate metabolism of blood, biochemistry and physics of various radio isotopes, radiation effects, plant physiology, instrumentation and publications. Is adaptable to a variety of research and production problems. B.S. in economics with experience in statistics. Married and 37 years old. Address: A-82.

• **PHYSIOLOGIST:** Pharmacology and biochemistry minors. Male. Considerable experience in good teaching. Publications. Ph.D., member of several scientific societies; interested in full-time academic position. Time arranged when available. Address: A-83.

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Index to Volume 28

The Journal of MEDICAL EDUCATION

Subject Index

A

- Abstracts and Excerpts:** Apr., 61; May, 64; June, 68; Aug., 74; Sept., 83; Nov., 76; Dec., 97.
- Admission to Medical School, Requirements for (Editorial),** Mar., 60.
- Admissions to Medical Schools, Matching Plan for (Cooper, Davenport),** Oct., 33.
- Applicant Studies (Editorial),** Feb., 86.
- Applications in Clinical Teaching (Part 2—Oct.),** Ch. V, 64.
- Applicants, the Study of (Stalnaker),** Feb., 21.
- Association of American Medical Colleges AAMC's 63rd Annual Meeting, The (Editorial),** Jan., 39.
- Calendar of Meetings,** Dec., 4.
- Individual Membership in the AAMC. (Editorial),** Dec., 72.
- Interim Report of the Committee on Public Information,** May, 41.
- Minutes of the Sixty-Third Annual Meeting.**
- Nominating Committee,** Jan., 45.
- Round Table Discussion Groups,** Jan., 45.
- Committee on Medical Education for National Defense (Stanley Olson),** Jan., 45.
- Open Hearings on Annual Reports of Committees,** Jan., 46.
- The Borden Award,** Jan., 46.
- Roll Call,** Jan., 45.
- Introduction of New Deans,** Jan., 43.
- Approval of Minutes of 62nd Annual Meeting,** Jan., 49.
- Report of the Chairman of the Executive Council (Joseph C. Hinsey),** Jan., 49.
- Report of the Secretary (Dean F. Smiley),** Jan., 52.
- Report of the Treasurer (John B. Youmans),** Jan., 53.
- Report of the Director of Studies (John M. Stalnaker),** Jan., 56.
- Report of the Managing Editor (William Swanberg),** Jan., 53.
- Report of the Director of the Medical Audio-Visual Institute (David S. Ruhe),** Jan., 59.
- Report of the Committee on Audiovisual Education (Walter A. Bloedorn),** Jan., 63.
- Report of the Committee on Environmental Medicine (Duncan W. Clark),** Jan., 64.
- Report of the Committee on Financial Aid to Medical Education (Vernon W. Lippard),** Jan., 69.
- Report of the Committee on Foreign Students (Francis Scott Smyth),** Jan., 70.
- Report of the Committee on Internships and Residencies (John B. Youmans),** Jan., 71.
- Report of the Committee on Licensure Problems (Charles A. Dean),** Jan., 75.
- Report on Long-Range Planning (Ward Darley),** Jan., 74.
- Report of the Committee on National Emergency Planning (Stockton Kimball),** Jan., 76.
- Report of the Committee on Public Information (L. R. Chandler),** Jan., 75.
- Report of the Committee on Student Personnel Practices, (Carlyle F. Jacobsen),** Jan., 76.
- Report of the Committee on Veterans Administration—Medical School Relationships (R. Hugh Wood),** Jan., 78.
- Revision of the By-Laws,** Jan., 80.
- Report of Nominating Committee,** Jan., 81.
- Annual Meeting, 1953,** Jan., 81.
- Survey of Medical Education (John Deitrick),** Jan., 81.
- The National Interassociation Committee on Internships (F. J. Mullin),** Jan., 81.
- The National Fund for Medical Education (Chase Melien Jr.),** Jan., 82.
- The American Medical Education Foundation (Hiram Jones),** Jan., 82.
- The National Society for Medical Research (Ralph Rohweder),** Jan., 83.
- American Council on Education (Robert L. Stearns),** Jan., 83.
- The National Health Council (Thomas D. Dublin),** Jan., 84.
- Council on Medical Education and Hospitals (Donald G. Anderson),** Jan., 84.
- Federation of State Medical Boards (Walter Bierring),** Jan., 84.
- The National Board of Medical Examiners (John P. Hubbard),** Jan., 85.
- The Student American Medical Association (Russell Staudacher),** Jan., 85.
- Medical Section—American College Public Relations Association (Joseph Kelly),** Jan., 86.
- The Clinical Center of the National Institutes of Health (W. Palmer Dearling),** Jan., 86.
- Presentation of Resolutions,** Jan., 87.
- Statement Regarding George Packer Berry,** Jan., 88.
- Executive Council Meeting Actions,** Jan., 88.
- Minutes of the Sixty-Fourth Annual Meeting,** Dec., 17.
- Naming of Nominating Committee,** Dec., 21.
- Introduction of New Deans,** Dec., 21.
- Revision of Constitution and By-Laws,** Dec., 21.
- Highlights of the Institute on the Teaching of Physiology, Pharmacology and Biochemistry,** Dec., 26.
- Meeting of Round Table Discussion Groups—Names of Group Chairmen,** Dec., 26.
- Presentation of Borden Award in the Medical Sciences for 1953,** Dec., 26.
- Address—(Arthur S. Adams), president, American Council on Education,** Dec., 26.
- Election of Officers for 1953-54,** Dec., 27.
- The Chief Findings and Recommendations of the Survey of Medical Education (John Deitrick), and members of the survey committee,** Dec., 27.
- Open Hearings on Annual Reports of Committees.**
- Names of Members of Committees (For full reports as acted upon see p. 41),** Dec., 27.
- Medical Audio-Visual Institute Film Program,** Dec., 28.
- Roll Call,** Dec., 28.
- Approval of Minutes of the 63rd Annual Meeting,** Dec., 23.
- Report of the Chairman of the Executive Council (Joseph C. Hinsey),** Dec., 23.
- Recommendations of the Executive Council,** Dec., 23.
- Report of the Secretary and Editor (Dean F. Smiley),** Dec., 33.
- Report of the Treasurer (John B. Youmans),** Dec., 34.

Report of the Director of Studies (John M. Stalnaker), Dec., 34.
 Report of the Director of the Medical Audio-Visual Institute (David S. Ruhe), Dec., 38.
 Audio-Visual Education (Walter A. Bloedorn), Dec., 41.
 Continuation Education (George N. Aagaard), Dec., 42.
 Editorial Board (Lowell T. Coggeshall), Dec., 44.
 Financial Aid to Medical Education (Vernon W. Lippard), Dec., 44.
 Graduate Medical Education (Kendall Corbin), Dec., 46.
 International Relations in Medical Education (Francis Scott Smyth), Dec., 49.
 Internships and Residencies (John B. Youmans), Dec., 53.
 Licensure Problems (Charles A. Doan), Dec., 53.
 Medical Care Plans (Henry B. Mulholland), Dec., 56.
 Medical Education for National Defense (Stanley W. Olson), Dec., 56.
 National Emergency Planning (Stockton Kimball), Dec., 58.
 Public Information (John L. Caughey Jr.), Dec., 60.
 Student Personnel Practices (Carlyle Jacobsen), Dec., 62.
 Veterans Administration—Medical School Relationships (R. Hugh Wood), Dec., 64.
 The National Fund for Medical Education (Chase Mellen Jr.), Dec., 65.
 The American Medical Association Foundation (Hiram Jones), Dec., 65.
 The Advisory Board for Medical Specialties (B. R. Kirklin), Dec., 66.
 The National Intern Matching Program (F. J. Mullin), Dec., 67.
 Time and Place of 65th Annual Meeting, Dec., 68.
 1954 Teaching Institute on Pathology, Microbiology, Immunology and Genetics, Dec., 68.
 Installation of President for 1953-54, Dec., 68.
 Association Committees and Representatives to Related Organizations for 1953-54, Dec., 68.
 Objectives of Undergraduate Medical Education, Mar., 67.
 Program for the Sixty-fourth Annual Meeting, Oct., 43.
 Public Information, Interim Report of the Committee on, May, 41.
 Report on the Association's 63rd Annual Meeting, Jan., 36.
 Report of the Association's 64th Annual Meeting, Nov., 42.
 Sixty-fourth Annual Meeting, The, Sept., 55.
 Audiovisual Aids (Part 2—Oct.) Appendix E, 123.
Audiovisual Education (Symposium)
 Concepts of the Short Film with Reference to Medical School Classroom Teaching (Ruhe), Feb., 51.
 Development of the Short Film in Medicine (Nichtenhauser), Feb., 53.
 Double Value (Ruhe), Feb., 77.
 Implications of Short Films in the Medical School (Ruhe), Feb., 74.
 Short Films for Cancer Teaching in the Medical School (Ruhe, Bazilauskas, Schenker), Feb., 62.
 Short Motion Picture for Medical School Classroom Instruction, The, Feb., 49.
Audiovisual News: Jan., 104; Feb., 99; Mar., 77; Apr., 63; May, 53; June 58; July, 67; Aug., 67; Sept., 71; Oct., 60; Nov., 65; Dec., 55.

B

Background and Organization of Conference (Part 2—Oct.) Appendix A, 109.
 Biochemistry in Medical Education (Westfield), Jan., 26.

Book Reviews: Jan., 114; Feb., 104; Mar., 85; Apr., 54; May, 50; June, 63; July, 71; Aug., 72; Sept., 77; Oct., 67; Nov., 71; Dec., 93.
Books and Pamphlets Received: Jan., 117; Feb., 110; Mar., 90; Apr., 60; May, 61; June, 66; Aug., 74; Sept., 81; Oct., 69; Nov., 74; Dec., 96.
 By Precept—A Critical Appraisal of Medical Teaching (Watson), May, 11.

C

Cancer
 Cancer Teaching in the Medical School, Short Films for, (Ruhe, Bazilauskas, Schenker), Feb., 62.
 Cancer Teaching Program in Medical Schools, The, (Kaiser), Aug., 45.
 Challenge to Medical Education in the Second Half of the 20th Century, The, (Whitby), Nov., 26.
 Clinical Investigation (Elman), Apr., 19.
 Clinical Teaching, Applications in (Part 2—Oct.) Ch. V, 64.
 Commentary by Dr. Alan Gregg (Part 2—Oct.) Ch. VII, 102.
 Communication and Great Medicine (Gregg), Jan., 17.
 Comprehensive Medical Care (Reader), July, 24.
 Concepts of the Short Film with Reference to Medical School Classroom Teaching (Ruhe), Feb., 51.
Conference
 Conference, Background and Organization of (Part 2—Oct.) Appendix A, 109.
 Conference on Preventive Medicine in Medical Schools (Hubbard, Clark), Mar., 48.
 Conference Roster (Part 2—Oct.) Appendix B, 114.
 Contributions of Postgraduate Medicine to Undergraduate Medical Education (Pulsen), May, 11.
 Contributions of Preventive Medicine in Medical Education and Research (Part 2—Oct.) Ch. II, 11.
 Counseling Activities in a Medical School Setting (Watson), Aug., 23.
 Course in Experimental Pathology for Medical Students, a (Coman, Breedie), Sept., 47.
 Current Research in Preventive Medicine (Part 2—Oct.) Appendix C, 119.

D

Degree Jurisdiction in Medical Schools (Constance), Jan., 22.
 Departments?, How Many (Editorial), Oct., 47.
 Development of the Short Film in Medicine (Nichtenhauser), Feb., 53.
 Didactic Instruction in Medicine (Baumeister, Darling), Apr., 34.
 Disease Prevention and Health Service (Nelson, Holmes), July, 30.
 Double Value (Ruhe), Feb., 77.

E

Editorials: Jan., 39; Feb., 55; Mar., 60; Apr., 37; May, 33; June, 46; July, 54; Aug., 51; Sept., 59; Oct., 46; Nov., 40; Dec., 73.
 Education?, What Is (Livingstone), Nov., 54.
 Educational TV Channel Reservations and Medical Schools (Editorial), Apr., 38.
 Expanding Opportunities and Responsibilities of the Physician, The (Part 2—Oct.) Ch. I, 1.
Extramural Facilities in Medical Education (Symposium)
 Comprehensive Medical Care (Reader), July, 24.
 Disease Prevention and Health Service (Nelson, Holmes), July, 30.
 General Practitioner Supervision (Packard), July, 13.

Integration of Psychiatry (Carter, Bandler, Bakst), July, 21.
 Introduction (Barr), July, 9.
 Medical Care (Bakst), July, 40.
 Observation of the Family in the Home (Hubbard), July, 26.
 Prolonged Illness (Cherkasky), July, 15.
 Student Participation and Supervision (Sheps, Fleming), July, 44.

F

Family Health Adviser Plan in Medical Teaching, The (Berle), June, 40.
 Financial Status of Medical Education, The (Darley), Feb., 11.
 First World Conference on Medical Education, The (Editorial), Aug., 52.
 First World Conference on Medical Education, The (Editorial), Oct., 46.
 Folk Medicine and Medical Practice (Saunders, Hewes), Sept., 43.
 Foreign Graduate and the Law, the Intern Shortage, The (Ley), Aug., 31.
 France, Medical Education in (Alajouanine), Aug., 20.
 Full-Time Clinical Teachers (Editorial), July, 54.

G

General Practice Residency, Postgraduate Training Through a (Smyth), June, 20.
General Practitioner
 General Practitioner, The Role of the Health Center in the Education of the (Landes), Aug., 41.
 General Practitioner Supervision (Pack-er), July, 12.
 Graduate and the Law, The Intern Shortage, the Foreign (Ley), Aug., 31.
 Graduate Medical Education (Bockus), Apr., 16.

H

Health Center in the Education of the General Practitioner, The Role of the (Landes), Aug., 41.
 Health Program, Issaquah School (Del-aher), Sept., 26.
 Health Service, Disease Prevention and (Nelson, Holmes), July, 30.
 Home Care Programs (Editorial), July, 54.
 How Many Departments? (Editorial), Oct., 47.
 Human Physiology for First-Year Medical Students (Landis), Feb., 33.

I

Illustrated Lectures in Moving Pictures (Ruhe), Sept., 30.
 Implications of Short Films in the Medical School, The (Ruhe), Feb., 74.
 Index to Volume 28, Dec., 102.
 Individual and Community Health Instruction in the Premedical Curriculum (Stilen, Smyth, Reuter), June, 29.
 Individual Membership in the AAMC. (Editorial), Dec., 73.
 Integration of Psychiatry (Carter, Bandler, Bakst), July, 21.

Intern

Intern Placement, The, Matching Program for (Stalnaker), Nov., 13.
 Intern Shortage, The Foreign Graduate and the Law, The (Ley), Aug., 31.
 Introduction (Symposium)—Extramural Facilities in Medical Education (Barr), July, 9.
 Investigative Possibilities for a Disease of Multiple Causation: Outline for Rheumatic Fever (Part 2—Oct.) Appendix D, 120.
 Issaquah School Health Program (Del-aher), Sept., 26.

J

Journal, A "First" for the (Editorial), Nov., 42.

L

Laboratory Teaching of Toxicology (Book-er), Apr., 35.
 Law, the Intern Shortage, The Foreign Graduate and the (Ley), Aug., 31.

M

Markle Grant, A New (Editorial), Nov., 41.
Matching Plan
 Matching Plan for Admissions to Medical Schools, A (Cooper, Davenport), Oct., 33.
 Matching Plan for Intern Placement, The (Stalnaker), Nov., 13.
 Medical Care (Bakst), July, 40.

Medical Education

Medical Education in France (Alajouanine), Aug., 20.
 Medical Education in Transition (Bery), Mar., 17.
Medical Education, general
 Biochemistry in Medical Education (Wes-terfield), Jan., 26.
 Challenge to Medical Education in the Second Half of the 20th Century (Whitby), Nov., 26.
 Contributions of Postgraduate Medicine to Undergraduate Medical Education (Pullen), May, 11.
 Contributions of Preventive Medicine in Medical Education and Research (Part 2—Oct.) Ch. II, 11.
 Extramural Facilities in Medical Education (Symposium), July, 9.
 Financial Status of Medical Education (Darley), Feb., 11.
 First World Conference on Medical Education, The (Editorial), Aug., 52.
 First World Conference on Medical Education, The (Editorial), Oct., 46.
 Graduate Medical Education (Bockus), Apr., 16.
 Medical Education in France (Alajouanine), Aug., 20.
 Need for a New Educational Approach (Collings), Sept., 19.
 Observations on Pediatric Education, Some, (Powers), Aug., 11.
 Part-Time Faculty Member in Medical Education and Research, The (Moore), Apr., 9.
 Postgraduate Training Through a General Practice Residency (Smyth), June, 20.
 Problems of Medical Education (Hin-sey), June, 11.
 Psychiatry in Medical Education (Pul-len), May, 24.
 Report of the Survey of Medical Education, The (Editorial), Aug., 51.
 Role of the Health Center in the Education of the General Practitioner, The (Landes), Aug., 41.
 World Conference on Medical Education (Editorial), Apr., 39.
Medical Practice, Folk Medicine and (Saunders, Hewes), Sept., 43.
 Medical School and Community Setting, The (Part 2—Oct.) Ch. VI, 85.
 Medical School and Public Relations, the (Williston), May, 33.
Medical Schools
 Medical Schools, Educational TV Channel Reservations and (Editorial), Apr., 35.
 Medical Schools, Degree Jurisdiction in (Constance), Jan., 22.
 Medical Schools and the Doctor Draft (Editorial), Jan., 39.
 Medical Schools, Matching Plan for Admissions to (Cooper, Davenport), Oct., 33.
 Medical School's Responsibility for Training Paramedical Personnel, The (Editorial), June, 47.
 Medical Schools, The Teaching of Physiology in (Symposium), Feb., 29.
 Medical Student Attitudes Toward Behavior Disorders (Saslow, Menah), Oct., 37.
 Medicine As Human Biology (Washburn), Dec., 9.

More Effective Utilization (Harbison), Apr., 13.
 More Time in the Curriculum (Editorial), May, 39.
 Moving Pictures, Illustrated Lectures in (Ruhe), Sept., 30.

N

National Fund Moves Into High Gear (Editorial), May, 28.
 Need for a New Educational Approach (Collings), Sept., 19.
 New Approach to Undergraduate Teaching of Psychiatric Problems of Children (Kaufman, Ripley), Nov., 21.
 New Markle Grant, A (Editorial), Nov., 41.
 News: Jan. 93; Feb., 89; Mar., 63; Apr., 40; May, 42; June, 49; July, 56; Aug., 54; Sept., 52; Oct., 49; Nov., 55; Dec., 77.

O

Objectives of Undergraduate Medical Education (Association of American Medical Colleges), Mar., 57.
 Observation of the Family in the Home (Hubbard), July, 26.
 Observations on Pediatric Education, Some (Powers), Aug., 11.
 Otolaryngology Looks to the Future (Hoopie), May, 29.
 Our Readers Write:
 Trends in Medical Education, Feb., 87;
 Comprehensive Medicine, Sept., 60;
 Match On!, Nov., 42; What Is Pathology? Dec., 74.

P

Part-Time Faculty Member, the (Symposium)
 Clinical Investigation (Elman), Apr., 19.
 Graduate Medical Education (Bockus), Apr., 16.
 More Effective Utilization (Harbison), Apr., 13.
 Part-Time Faculty Member in Medical Education and Research, The (Moore), Apr., 9.
 Precinical Teaching (Rinehart), Apr., 10.
 Part-Time Teachers (Editorial), Apr., 37.
 Pathology for Medical Students, a Course in Experimental (Coman, Breedis), Sept., 47.
 Pathology—Present and Future (McManus), Aug., 35.
 Pediatric Education, Some Observations on (Powers), Aug., 11.
 Personnel Shortages, Physicians and (Editorial), Nov., 40.
 Personnel Exchange: Jan., 120; Feb., 114; Mar., 93; Apr., 69; May, 67; June, 70; July, 74; Aug., 78; Sept., 85; Oct., 70; Nov., 76; Dec., 99.
 Pharmacology, The Teaching of (DiPalma), Apr., 28.
 Pharmacology, Teaching Exercise with Barbiturates, A (Goldstein), Aug., 43.
 Physicians and Personnel Shortages (Editorial), Nov., 40.
 Physiology (Symposium)
 Human Physiology for First-Year Medical Students (Landis), Feb., 33.
 Point of View of Practicing Physicians Toward Teaching Physiology in Medical Schools, The (Comroe), Feb., 47.
 Principles in Teaching Physiology?, Are There (Adolph), Feb., 29.
 Report of Student Committee on the Medical Students' Point of View (Allen, Braunwald, Daves, Smith, Stokes), Feb., 42.
 Teaching of Physiology in Medical Schools, The, Feb., 29.
 Teaching of Physiology to Third and Fourth-Year Medical Students, The (Starr), Feb., 36.
 Point of View of Practicing Physicians Toward Teaching Physiology in Medical Schools, The (Comroe), Feb., 47.

Population 1952-1953, Ratio of Applicants to (Stalnaker, Counts), Oct., 28.
 Postgraduate Medicine to Undergraduate Medical Education, Contributions of (Pullen), May, 17.
 Postgraduate Training Through a General Practice Residency (Smyth), June, 20.
 Practice, Folk Medicine and Medical (Saunders, Hewes), Sept., 43.
 Precinical Teaching (Rinehart), Apr., 10.
 Premedical Students, The Retentive Index of Learning of (Essenberg), Sept., 52.

Preventive Medicine
 Conference on Preventive Medicine in Medical Schools (Hubbard, Clark), Mar., 45.
 Teaching of Preventive Medicine, The, (Barr), Mar., 49.
Preventive Medicine in Medical Schools (Part 2—Oct.)
 Appendix A—Background and Organization of Conference, 109.
 Appendix B—Conference Roster, 114.
 Appendix C—Current Research in Preventive Medicine, 119.
 Appendix D—Investigative Possibilities for a Disease of Multiple Causation: Outline for Rheumatic Fever, 120.
 Appendix E—Audiovisual Aids, 122.
 Appendix F—Status of Preventive Medicine in Medical Schools: Organization, Personnel and Space (Academic Year 1951-1952), 123.
 Applications in Clinical Teaching (Ch. V), 64.
 Commentary by Dr. Alan Gregg (Ch. VII), 102.
 Contributions of Preventive Medicine in Medical Education and Research (Ch. II), 11.
 Expanding Opportunities and Responsibilities of the Physician, The (Ch. I), 1.
 Medical School and Community Setting, The (Ch. VI), 35.
 Student, The (Ch. III), 27.
 Teaching the Foundations of Preventive Medicine (Ch. IV), 39.
 Principles in Teaching Physiology?, Are There (Adolph), Feb., 29.
 Problem of Maturity in Psychiatric Research, The (Kubie), Oct., 11.
 Problems of Medical Education (Hinsey), June, 11.
 Program for the 1953 Teaching Institute (Editorial), May, 40.
 Prolonged Illness (Cherkasky), July, 15.
 Psychiatric Problems of Children, New Approach to Undergraduate Teaching of (Kaufman, Ripley), Nov., 21.
 Psychiatric Research, The Problem of Maturity in (Kubie), Oct., 11.
 Psychiatric Teaching on an Inpatient Medical Service (Aldrich), June, 36.
Psychiatry
 Psychiatry, Integration of (Carter, Bandler, Bakat), July, 21.
 Psychiatry in Medical Education (Thompson), May, 24.
 Public Relations, The Medical School and (Williston), May, 33.

R

Ratio of Applicants to Population 1952-1953 (Stalnaker, Counts), Oct., 28.
 Report of Student Committee on the Medical Students' Point of View (Allen, Braunwald, Daves, Smith, Stokes), Feb., 42.
 Report of the Survey of Medical Education, The (Editorial), Aug., 51.
 Requirements for Admission to Medical School (Editorial), Mar., 60.
Research
 Research, Contributions of Preventive Medicine in Medical Education and (Part 2—Oct.) Ch. II, 11.
 Research in Preventive Medicine, Current (Part 2—Oct.) Appendix C, 119.
 Responsibilities of the Physician, Expanding Opportunities and (Part 2—Oct.) Ch. I, 1.

Retentive Index of Learning of Premedical Students, The (Essenberg), Sept., 52.
 Role of the Health Center in the Education of the General Practitioner (Landes), Aug., 41.

S

School Health Program, Issaquah (Deisher), Sept., 26.
 Senate Bill 1153 (Editorial), June, 46.
 Sharing Responsibility (Editorial), Sept., 69.
 Short Films for Cancer Teaching in the Medical School (Ruhe, Bazilauskas, Schenker), Feb., 62.
 Short Motion Picture for Medical School Classroom Instruction, The (Symposium), Feb., 49.
 Showmanship in medical teaching (Freeman), Jan., 31.
 Sixty-Fourth Annual Meeting, The (Association of American Medical Colleges), Sept., 55.
 Staff Evaluation (Roofe), Sept., 39.
 Status of Preventive Medicine in Medical Schools: Organization, Personnel and Space (Academic Year 1951-1952) (Part 2—Oct.), Appendix F, 123.
 Student, The (Part 2—Oct.) Ch. III, 27.
 Student Participation and Supervision (Sheps, Fleming), July, 44.
 Study of Applicants, The (Stalnaker), Feb., 21.

T

Teachers, Full-Time Clinical (Editorial), July, 54.
 Teachers, Part-Time (Editorial), Apr., 37.
 Teaching
 Applications in Clinical Teaching (Part 2—Oct.) Ch. V, 64.
 By Precept—A Critical Appraisal of Medical Teaching (Watson), May, 11.
 Cancer Teaching Program in Medical Schools, The (Kaiser), Aug., 45.
 Concepts of the Short Film with Reference to Medical School Classroom Teaching (Ruhe) Feb., 61.
 Conference on Preventive Medicine in Medical Schools (Hubbard, Clark), Mar., 43.
 Course in Experimental Pathology for Medical Students, A (Coman, Breedis), Sept., 47.
 Development of the Short Film in Medicine (Nichtenhauser), The, Feb., 53.
 Didactic Instruction in Medicine (Baumeister, Darling), Apr., 24.
 Double Value (Ruhe), Feb., 77.
 Family Health Adviser Plan in Medical Teaching, The (Berle), June, 40.
 Human Physiology for First-Year Medical Students (Landis), Feb., 33.
 Illustrated Lectures in Moving Pictures (Ruhe), Sept., 30.
 Implications of Short Films in the Medical School, The (Ruhe), Feb., 74.
 Individual and Community Health Instruction in the Premedical Curriculum (Stiles, Smyth, Reuter), June, 29.
 Laboratory Teaching of Toxicology (Booker), Apr., 35.
 New Approach to Undergraduate Teaching of Psychiatric Problems of Children (Kaufman, Rinley), Nov., 21.
 Pharmacology Teaching Exercise with Barbiturates, A (Goldstein), Aug., 48.
 Point of View of Practicing Physicians Toward Teaching Physiology in Medical Schools, The (Comroe), Feb., 47.
 Preclinical Teaching (Rinehart), Apr., 10.
 Principles in Teaching Physiology?, Are There (Adolph), Feb., 29.
 Psychiatric Teaching on an Inpatient Medical Service (Aldrich), June, 36.
 Report of Student Committee on the Medical Students' Point of View (Allen, Braunwald, Daves, Smith, Stokes), Feb., 42.

Short Films for Cancer Teaching in the Medical School (Ruhe, Bazilauskas, Schenker), Feb., 62.
 Short Motion Picture for Medical School Classroom Instruction (Symposium), Feb., 49.
 Showmanship in Medical Teaching (Freeman), Jan., 31.
 Teaching the Foundations of Preventive Medicine (Part 2—Oct.) Ch. IV, 39.
 Teaching Institutes (Editorial), Mar., 60.
 Teaching of Pharmacology, The (DiPalma), Apr., 28.
 Teaching of Physiology in Medical Schools, The (Symposium), Feb., 29.
 Teaching of Physiology to Third and Fourth-Year Medical Students, The (Starr), Feb., 36.
 Teaching of Preventive Medicine, The (Barr), Mar., 49.
 Toxicology, Laboratory Teaching of (Booker), Apr., 35.
 TV Channel Reservations and Medical Schools, Educational (Editorial), Apr., 38.

U

Undergraduate Medical Education, Contributions of Postgraduate Medicine to (Pullen), May, 11.

W

What Is Education? (Livingstone), Nov., 34.
 Wider Participation (Editorial), Mar., 60.
 World Conference on Medical Education (Editorial), Apr., 39.
 World Conference on Medical Education, The First (Editorial), Aug., 52.
 World Conference on Medical Education, The First (Editorial), Oct., 46.

Author Index

A

Aagaard, George N.: Continuation Education, Dec., 42.
 Adams, Arthur S.: American Council on Education—Address, Dec., 26.
 Adolph, E. F.: Are There Principles in Teaching Physiology?, Feb., 29.
 Alajouanine, Theophile A.: Medical Education in France, Aug., 20.
 Aldrich, C. Knight: Psychiatric Teaching on an Inpatient Medical Service, June, 36.
 Allen, George W.; Braunwald, Eugene; Daves, Marvin L.; Smith, Buel S.; Stokes, Peter: Report of Student Committee on the Medical Students' Point of View, Feb., 42.
 Anderson, Donald G.: Council on Medical Education and Hospitals, Jan., 84.

B

Bakst, Henry J.: Medical Care, July, 40.
 Bakst, Henry J.; Carter, George H.; Bandler, Bernard: Integration of Psychiatry, July, 31.
 Bandler, Bernard; Bakst, Henry J.; Carter, George H.: Integration of Psychiatry, July 21.
 Barr, David P.: Introduction (Symposium—Extramural Facilities in Medical Education), July, 9.
 The Teaching of Preventive Medicine, The, Mar., 49.
 Baumeister, Carl F. and Darling, Duane D.: Didactic Instruction in Medicine, Apr., 24.
 Bazilauskas, V. F.; Schenker, Norman P.; Ruhe, David S.: Short Films for Cancer Teaching in the Medical School, Feb., 62.
 Berle, Beatrice B.: Family Health Adviser Plan in Medical Teaching, June 40.

Berry, George Packer: Medical Education in Transition, Mar. 17.
 Biering, Walter: Federation of State Medical Boards, Jan., 84.
 Bloedorn, Walter A.: Report of the Committee on Audiovisual Education, Jan., 63.
 Audiovisual Education, Dec., 41.
 Bockus, Henry L.: Graduate Medical Education, Apr., 16.
 Booker, Walter M.: Laboratory Teaching of Toxicology, Apr., 35.
 Braunwald, Eugene; Daves, Marvin L.; Smith, Buel S.; Stokes, Peter; Allen, George W.: Report of Student Committee on the Medical Students' Point of View, Feb., 42.
 Breedis, Charles; Coman, Dale Rex: A Course in Experimental Pathology for Medical Students, Sept., 47.

C

Carter, George H.; Bandler, Bernard; Bakst, Henry J.: Integration of Psychiatry, July, 21.
 Caughey, John L. Jr.: Public Information, Dec., 60.
 Chandler, L. R.: Report of the Committee on Public Information, Jan., 75.
 Cherkasky, Martin: Prolonged Illness, July, 15.
 Clark, Duncan W.: Report of the Committee on Environmental Medicine, Jan., 64.
 Clark, Katharine G. and Hubbard, John P.: Conference on Preventive Medicine in Medical Schools, Mar., 43.
 Coggeshall, Lowell T.: Editorial Board, Dec., 44.
 Collings, Joseph S.: Need for a New Educational Approach, Sept., 19.
 Coman, Dale Rex; Breedis, Charles: A Course in Experimental Pathology for Medical Students, Sept., 47.
 Comroe, Julius H. Jr.: The Point of View of Practicing Physicians Toward Teaching Physiology in Medical Schools, Feb., 47.
 Constance, Clifford L.: Degree Jurisdiction in Medical Schools, Jan., 22.
 Cooper, John A. D.; Davenport, Harold A.: Matching Plan for Admissions to Medical Schools, Oct., 23.
 Corbin, Kendall: Graduate Medical Education, Dec., 46.
 Counts, Sarah; Stalnaker, John M.: Ratio of Applicants to Population 1952-1953, Oct., 23.

D

Darling, Duane D. and Baumeister, Carl F.: Didactic Instruction in Medicine, Apr., 24.
 Darley, Ward: The Financial Status of Medical Education, Feb., 11.
 Report on Long-Range Planning, Jan., 74.
 Davenport, Harold A.; Cooper, John A. D.: Matching Plan for Admissions to Medical Schools, Oct., 23.
 Daves, Marvin L.; Smith, Buel S.; Stokes, Peter; Allen, George W.; Braunwald, Eugene: Report of Student Committee on the Medical Students' Point of View, Feb., 42.
 Dearing, W. Palmer: The Clinical Center of the National Institutes of Health, Jan., 86.
 Delsher, Robert W.: Issaquah School Health Program, Sept., 26.
 Deltrick, John: Survey of Medical Education, Jan., 81.
 Chief Findings and Recommendations of the Survey of Medical Education, Dec., 27.
 DiPalma, Joseph R.: Teaching of Pharmacology, Apr., 25.
 Doan, Charles A.: Report of the Committee on Licensure Problems, Jan., 73.
 Licensure Problems, Dec., 53.
 Dublin, Thomas D.: The National Health Council, Jan., 84.

E

Elman, Robert: Clinical Investigation, Apr., 19.
 Essenberg, J. M.: Retentive Index of Learning of Premedical Students, Sept., 52.

F

Fleming, William L.; Sheps, Cecil G.: Student Participation and Supervision, July, 44.
 Freeman, Walter: Showmanship in Medical Teaching, Jan., 31.

G

Goldstein, Avram: A Pharmacology Teaching Exercise with Barbiturates, Aug., 45.
 Gregg, Alan: Commentary, (Part 2—Oct.) Ch. VII, 102.
 Communication and Great Medicine, Jan., 17.

H

Harbison, Samuel P.: More Effective Utilization, Apr., 13.
 Hewes, Gordon W.; Saunders, Lyle: Folk Medicine and Medical Practice, Sept., 43.
 Hinsey, Joseph C.: Problems of Medical Education, June, 11.
 Report of the Chairman of the Executive Council, Jan., 48.
 Report of the Chairman of the Executive Council, Dec., 23.
 Holmes, Edward; Nelson, Kinloch: Disease Prevention and Health Service, July, 30.
 Hoople, Gordon D.: Otolaryngology Looks to the Future, May, 29.
 Hubbard, John P.: Observation of the Family in the Home, July, 26.
 The National Board of Medical Examiners, Jan., 85.
 Hubbard, John P.; Clark, Katharine G.: Conference on Preventive Medicine in Medical Schools, Mar., 43.

J

Jacobsen, Carlyle F.: Report of the Committee on Student Personnel Practices, Jan., 76.
 Student Personnel Practices, Dec., 62.
 Jones, Hiram: The American Medical Education Foundation, Jan., 82.
 The American Medical Association Foundation, Dec., 65.

K

Kaiser, Raymond F.: Cancer Teaching Program in Medical Schools, Aug., 45.
 Kaufman, S. Harvard; Ripley, Herbert S.: New Approach to Undergraduate Teaching of Psychiatric Problems of Children, Nov., 21.
 Kelly, Joseph: Medical Section—American College Public Relations Association, Jan., 86.
 Kimball, Stockton: Report of the Committee on National Emergency Planning, Jan., 75.
 National Emergency Planning, Dec., 59.
 Kirklin, B. R.: The Advisory Board for Medical Specialties, Dec., 66.
 Kubie, Lawrence S.: The Problem of Maturity in Psychiatric Research, Oct., 11.

L

Landes, Jacob H.: Role of the Health Center in the Education of the General Practitioner, Aug., 41.
 Landis, Eugene M.: Human Physiology for First-Year Medical Students, Feb., 33.
 Lay, Allyn B.: The Intern Shortage, the Foreign Graduate and the Law, Aug., 31.
 Lippard, Vernon W.: Report of the Committee on Financial Aid to Medical Education, Jan., 69.

Financial Aid to Medical Education, Dec., 44.
Livingstone, Sir Richard: What is Education? Nov., 34.

M

McManus, J. F. A.: Pathology—Present and Future, Aug., 35.
Mellen, Chase Jr.: The National Fund for Medical Education, Jan., 52.
The National Fund for Medical Education, Dec., 65.
Mensch, Ivan N.; Saslow, George: Medical Student Attitudes Toward Behavior Disorders, Oct., 37.
Moore, Robert A.: The Part-Time Faculty Member in Medical Education and Research, Apr., 9.
Mulholland, Henry B.: Medical Care Plans, Dec., 55.
Mullin, F. J.: The National Interassociation Committee on Internships, Jan., 81.
The National Intern Matching Program, Dec., 67.

N

Nelson, Kinloch; Holmes, Edward: Disease Prevention and Health Service, July, 30.
Nichtenhauser, Adolf: The Development of the Short Film in Medicine, Feb., 53.

O

Olson, Stanley: Committee on Medical Education for National Defense, Jan., 45.
Medical Education for National Defense, Dec., 56.

P

Packer, Henry: General Practitioner Supervision, July, 12.
Powers, Grover F.: Some Observations on Pediatric Education, Aug., 11.
Pullen, Roscoe L.: Contributions of Postgraduate Medicine to Undergraduate Medical Education, May, 17.

R

Reader, George G.: Comprehensive Medical Care, July, 34.
Reuter, Mathias; Stiles, William W.; Smyth, Francis Scott: Individual and Community Health Instruction in the Premedical Curriculum, June, 29.
Rinehart, James P.: Preclinical Teaching, Apr., 19.
Ripley, Herbert S.; Kaufman, S. Harvard: New Approach to Undergraduate Teaching of Psychiatric Problems of Children, Nov., 21.
Rohweder, Ralph: The National Society for Medical Research, Jan., 53.
Roofe, Paul G.: Staff Evaluation, Sept., 39.
Ruhe, David S.: Double Value, Feb., 77.
Illustrated Lectures in Moving Pictures, Sept., 30.
The Implications of Short Films in the Medical School, Feb., 74.
Report of the Director of the Medical Audio-Visual Institute, Jan., 59.
Report of the Director of the Medical Audio-Visual Institute, Dec., 38.
Ruhe, David S.; Bazilauskas, V. F.; Schenker, Norman P.: Short Films for Cancer Teaching in the Medical School, Feb., 62.

S

Saslow, George; Mensch, Ivan N.: Medical Student Attitudes Toward Behavior Disorders, Oct., 37.
Saunders, Lyle; Hewes, Gordon W.: Folk Medicine and Medical Practice, Sept., 43.

Schenker, Norman P.; Ruhe, David S.; Bazilauskas, V. F.: Short Films for Cancer Teaching in the Medical School, Feb., 62.
Shepa, Cecil G.; Fleming, William L.: Student Participation and Supervision, July, 44.
Smiley, Dean F.: Report of the Secretary, Jan., 52.
Report of the Secretary and Editor, Dec., 52.
Smith, Buel S.; Stokes, Peter; Allen, George W.; Braunwald, Eugene; Daves, Marvin L.: Report of Student Committee on the Medical Students' Point of View, Feb., 42.
Smyth, Charley J.: Postgraduate Training Through a General Practice Residency, June, 20.
Smyth, Francis Scott; Reuter, Mathias; Stiles, William W.: Individual and Community Health Instruction in the Premedical Curriculum, June, 29.
Report of the Committee on Foreign Students, Jan., 70.
International Relations in Medical Education, Dec., 49.
Stalnaker, John M.: The Matching Program for Intern Placement, Nov., 13.
The Study of Applicants, Feb., 21.
Report of the Director of Studies, Jan., 56.
Report of the Director of Studies, Dec., 36.
Stalnaker, John M.; Counts, Sarah: Ratio of Applicants to Population 1952-1953, Oct., 28.
Starr, Isaac: The Teaching of Physiology to Third and Fourth-Year Medical Students, Feb., 36.
Staudacher, Russell: The Student American Medical Association, Jan., 35.
Stearns, Robert L.: American Council on Education, Jan., 83.
Stiles, William W.; Smyth, Francis Scott; Reuter, Mathias: Individual and Community Health Instruction in the Premedical Curriculum, June, 29.
Stokes, Peter; Allen, George W.; Braunwald, Eugene; Daves, Marvin L.; Smith, Buel S.: Report of Student Committee on the Medical Students' Point of View, Feb., 42.
Swanberg, William: Report of the Managing Editor, Jan., 53.

T

Thompson, George N.: Psychiatry in Medical Education, May, 24.

W

Washburn, Alfred H.: Medicine as Human Biology, Dec., 3.
Watson, E. H.: By Precept—A Critical Appraisal of Medical Teaching, May, 11.
Watson, Robert L.: Counseling Activities in a Medical School Setting, Aug., 23.
Westerfield, W. W.: Biochemistry in Medical Education, Jan., 26.
Whitby, Sir Lionel: Challenge to Medical Education in the Second Half of the 20th Century, Nov., 26.
Williston, C. Lincoln: The Medical School and Public Relations, May, 33.
Wood, R. Hugh: Report of the Committee on Veterans Administration—Medical School Relationships, Jan., 78.
Veterans Administration—Medical School Relationships, Dec., 64.

Y

Youmans, John B.: Report of the Treasurer, Jan., 53.
Report of the Treasurer, Dec., 34.
Report of the Committee on Internships and Residencies, Jan., 71.
Internships and Residencies, Dec., 53.



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